WHAT ABOUT CRIME?

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NOTE: This is a working paper based on an analysis of prison admissions from the National Corrections Reporting Program and crimes and arrests from the Uniform Crime Reports. Results are tentative.

Even granting that innocent people are sometimes convicted of crime, the vast majority of people who are sent to prison have committed a crime. Thus, it might seem that spiraling incarceration was caused by spiraling crime. If the probability remains constant of going to prison conditioned upon committing a crime, then incarceration rates ought to track crime rates. But this simple relationship did not fit the patterns of the 1980s and 1990s. Instead, spiraling incarceration was due primarily to the drug war and policy changes in the response to crime, not to the amount of crime. The ratio of prison sentences to crimes went up substantially in the 1980s and 1990s. According to the principles of deterrence and incapacitation[1], this higher probability of punishment should have reduced the willingness or ability to commit crime, which, in turn, should have led to a decline in incarceration. Crime declined but incarceration did not. The national incarceration rate did not even begin to decline until 2009, well after the end of the study period. A great deal of careful research by criminologists tracked these trends and debated their implications for theories of deterrence and incapacitation. This paper presents the important empirical trends and provides an overview of the literature that debated the meaning of these trends for theories of incapacitation and deterrence.

NATIONAL TRENDS IN CRIME RATES AND RATIOS OF PRISON/CRIME AND ARREST/CRIME

CRIME

We begin by locating our study period in a broader historical context. Figure 1 shows a 40-year series relating crime as reported to police and the number of sentenced prisoners. As most of our analysis focuses on a more recent period, we mark 1978, the year the CPUS data series begins; our NCRP data focuses on 1985-2002. As the figure shows, the reported crime rate[2] rose substantially between 1960 and 1980, peaking in 1980. The official rule for reporting a theft changed in 1973 from only those of $50 or more value to all thefts—the bump due to this change can be seen in the graph. Part of the rise is due to improved crime reporting in the 1970s as funding for

police agencies increased[3], but even with this caveat, crime was high in the 1970s. Crime reported to the police was declining in the early 1980s and then began rising again in 1985, peaking in 1990 and declining in the economic boom period of the 1990s. Imprisonment began rising after 1975 and thereafter rose steeply at a rate of 6-12% a year through the 1990s. Although high crime rates in the 1970s probably contributed to the political shift to favor higher incarceration rates, the trends in imprisonment are clearly not simply tracking crime. In particular, imprisonment kept rising steeply as crime declined steeply.

We can get another view on the trends by considering the ratio of sentenced prisoners per 1000 crimes as reported to the police, shown in Figure 2. This ratio fell between 1960 and 1975 as crime rose and the imprisonment rate held steady, then rose again as imprisonment rose in the face of declining crime. The index crime ratio was back to its 1960 level in the early 1990s and the violent crime level returned to the 1960 level by 1998. This view suggests that the incarceration boom was perhaps fundamentally about bringing the incarceration/crime ratio back to historic levels until it overshot the mark.

Yet another view comes from combining information from the National Corrections Reporting Program with information from the Uniform Crime Reports. We may calculate the ratio of prison sentences to police crime reports for three crime groups: violence, robbery and burglary combined, and thefts. Figure 3 shows that this ratio increased nationally by about 50% across all crime groups between 1985 and 2002. The figure multiplies the ratio for robbery/burglary and theft by constants to bring them into the range for violent offenses so that the trends can be compared.[4] In short, the rise in prison sentences for these crimes was due to a much higher chance of getting a prison sentence for any given crime, not to more crime.

ARRESTS AND CRIME

Did changing arrest rates play a role in this? We have arrest information for metropolitan areas only. Figure 4 shows the ratio of arrests to crimes in metropolitan areas with NCRP data. Again this ratio is highest for violence and constant multipliers on the other crimes bring them into the same scale in the chart. The trends differ for each crime group. The arrest/crime ratio for robbery/burglary shows an increase followed by a decline in the late 1990s; the ratio for theft is fairly flat until the late 1990s and then declines. By contrast, the arrest/crime ratio climbed steeply for violence and then leveled off at the end of the series without declining. In fact, there were

more arrests for violent crimes than violent crimes, according to police data. This is partly because the crime statistic excludes simple assault, while the arrest statistic includes it.[5] However, there is no evidence that the mix of aggravated and simple assaults changed over time, so the steep rise in this ratio remains unexplained. Further, many areas also have substantially more arrests for murder than they have murders, sometimes by a factor of 10 or more. Although the median number of murder arrests per murder is one, 10% of the area-year cases involved an average of more than 2 murder arrests per murder and 1% involved an average of 6 or more (up to 23) murder arrests per murder. A statistician in Wisconsin's Office of Justice Assistance called this issue to my attention for Wisconsin. It is certainly possible upon occasion for a large group of people to be implicated in the same murder, but as an average across a large number of cases, it is an unlikely statistical phenomenon. There were sporadic news accounts of this phenomenon in the early 2000s: apparently police sometimes used the occasion of a murder to round up the "usual suspects" on murder charges and use the threat of a murder charge to gain information.[6]

RACIAL PATTERNS IN ARREST

We can also examine the trends in arrest and the ratio of prison sentences to arrest by racial groups. Since 1984, the "official" racial categorization of arrest statistics groups Hispanics with Whites. The imprisonment data show substantial Hispanic/White disparities, especially for drug offenses and it must be assumed that the magnitude of Black/White arrest disparity is understated when Hispanics are included with Whites. It also means that attempts to compare Black/White arrest disparities between places are distorted by the proportion of Hispanics in an area. Despite these problems, it is worthwhile to at least examine arrest trends.

National arrest disparities for the five offense groups are shown in Figure 5. The highest arrest disparity is for robbery/burglary, followed (after 1988) by drugs, then violence, then theft; the "other" offenses combined have the lowest arrest disparity. The arrest disparities for all offense groups rose in the late 1980s. The arrest disparities for robbery/burglary, violence, and drug offenses generally declined after 1990, although there is a late-1990s uptick for drugs. The arrest disparity for theft declined after 1995. The disparity for other offenses was both much lower and more volatile but also seemed to decline at the end of the series after rising in the late 1990s. Although we were not able to disaggregate prison admissions by type of drug sentence due to data inadequacies[7], arrest data do distinguish "manufacturing and delivering" illegal substances from possession. Figure 6 shows that

the arrest disparity for drug sales (i.e. manufacturing/delivery) is much higher than for possession and that the disparity in arrests for possession declined modestly after the early 1990s, while for sales it held steady or rose somewhat. Both sales and possession showed steep rises in the disparity in the late 1980s, but the rise was steeper for sales. It is likely that much of this difference is due to the face that after the 1986 Anti-Drug Abuse Act, possession of five grams or more of crack cocaine permits the presumption of intent to deliver and thus is generally classified as a drug sales arrest.

It can be helpful to see how these disparities result from the race- and offense-specific arrest trends. The trends in arrests differ by offense group, but have generally been similar across time for both racial groups. In the following figures, the White+Hispanic rate is multiplied by a constant so that the trends for the two groups can be compared on the same axis. Figure 7 shows the trends for all arrests for all offenses combined. Arrest rates are generally four times higher for Blacks than Whites+Hispanics. The figure shows a much steeper rise in the 1980s and fall after 1998 for Blacks than for Whites. Violence arrests are shown in Figure 8 where the multiplier indicates that Black violence arrests were generally about five times higher; both racial groups showed a similar rise in the 1980s and both begin declining after 1995, but Whites+Hispanics show proportionately more increase after 1990 and a smaller decrease after 1995 . The multiplier for robbery/burglary arrests in Figure 9 is six; there is a long-term decline in arrests for both groups and very similar patterns after 1990. In the 1980s, White+Hispanic arrests declined while Black arrests were mostly steady with a small increase in 1989 before the long decline. The multiplier for theft arrests in Figure 10 is four, and the two groups showed almost identical trends in arrests over time, with a modest rise in the 1980s followed by a long steep decline. Only at the very end of the series is there a divergence, as White+Hispanic arrest rates show less decline after 2000 than Black arrests. The grab-bag of "other" offense arrests, perhaps not surprisingly, shows more erratic trends (Figure 11). Again recall that there is a multiplier of four in the graph. What it shows is that these "other" arrests increased steeply for both groups (but Blacks more than Whites+Hispanics) 1997-8 and then fell again to the end of the series.

All drug arrests combined shown in Figure 12 have a multiplier of five and show very similar trends for the two racial groups: a steep rise to a peak in 1989 followed by a steep decline to 1991, followed immediately by a steep rise for Whites+Hispanics, and a rise after 1993 for Blacks. The 1990s rise peaks in 1998 and then there is a

decline which is steeper for Blacks than for Whites+Hispanics. We can break these drug arrest trends out by type. Figure 13 shows drug sales, where the multiplier is eight and the two trends look remarkably similar, except that the 1980s rise was steeper for Blacks than Whites+Hispanics. Arrests for drug possession are shown in Figure 14 where the multiplier is four and, again, the trends for the races seem very similar except that the 1980s rise and the post-1998 decline are both steeper for Blacks.

We can also consider the trends in the ratio of prison sentences to arrests by race and offense group. There are many more arrests than prison sentences across all offense groups. Figure 15 shows the ratio for all races by offense. Robbery/burglary has the highest prison/arrest ratio and it increased across time. The next highest ratio is for drug sentences; this ratio rose steeply through the early 1990s then declined modestly and leveled off. The ratios for violence and theft are loser but also rose after the mid-1990s; the ratio for other offenses is quite low and fluctuated. Comparison of the racial trends for each offense group shows some differences between offenses. The property offenses show a consistent racial gap over time. Figure 16 shows the trend for robbery/burglary, where there is a consistently higher prison/arrest ratio for Blacks even as the ratio for both groups climbs steeply after 1995. Figure 17 shows a similar pattern for theft: a consistent racial ratio and a rise for both group in the late 1990s. By contrast, Figure 18 shows a very different trend for violence offenses, a racial gap before 1994 becomes almost non-existent after 1997 as the ratio for both races climbs steeply. Similar to the violence trend, Figure 19 shows a decline in the racial gap in the prison/arrest ratio for the grab bag of other offenses. As with violence, there is a large racial gap in the prison/arrest ratio for other offenses before 1995. After 1995 the ratio first falls steeply for both groups to 1998, but more steeply for Blacks, so that after 1998 the ratio is virtually the same for both racial groups. The ratio rises steeply for both racial groups after 2000. Finally, the prison/arrest ratio shows increasing racial divergence for drug offenses. Figure 20 shows that the prison/arrest ratio for drug offenses was similar for the two racial groups at the beginning of the series in 1985 but diverged markedly by 1990. After the 1990s, the racial gap in the prison/arrest ratio for drugs remained high, even though both groups showed some decline in the ratio in the early 1990s.

To summarize the general pattern of the data for ordinary crime (violence, robbery/burglary, theft) from 1990 on is that arrests declined while the ratio of prison sentences to arrests rose and the trends were similar for

both racial groups. The prison/arrest ratio was generally higher for Blacks; this gap was fairly consistent across time for property crimes but declined markedly after 1995 for violent crimes. Drug offenses show a different pattern from ordinary crime: arrest rates went up and down twice between 1985 and 2002 while the prison/arrest ratio went up initially and then stayed fairly stable with a persistent racial gap. The grab bag of "other" offenses shows sharp changes over time that are difficult to interpret as they probably reflect changes in the treatment of drunk driving and public order offenses.

CORRELATIONS BETWEEN CRIME AND IMPRISONMENT BETWEEN PLACES[8]

Cross-national studies show a very low relationship between a country's crime level and its imprisonment rate, as well as low correlations between imprisonment and other measures of control such as convictions (Lappi-Seppälä 2008). There is a similarly low relationship comparing local areas within the US. If we regress the rate of new prison sentences for people of all races for a particular crime on the rate for that crime in the area, crime explains only a small part of the total variance, as can be seen in Figure 21. These R^2s are for a total of 3222 place-years and capture both between-place and across-time effects. The R^2s for robbery and burglary are just under .3 for metro and non-metro areas. For violence, the R^2 to .4 for non-metro areas, but a much lower .15 for metro areas. The R^2s for theft are very low, indicating that theft crime rates are of virtually no value in predicting the rate at which people will get prison sentences for theft. Similarly, the regressions of arrest rates and prison sentence rates on crime have moderate to low R^2s, as can be seen in Table 1, as do the regressions of prison sentence rates on arrest rates (which can be disaggregated by race), as shown in Table 2. What all this means is that there is a great deal of variation across time and place in the extent to which crimes or even arrests turn into prison sentences.[9]

If the crime rates, arrest rates, and measures of the ratios of prison to crime, arrest to crime, or prison to arrest are regressed on dummy variables for place and year, they show very similar patterns to what we saw for prison admission rates.[10] That is, there are very high R2's associated with the fixed "place" effects, and non-negligible time effects for specific crimes, especially Black drug arrests, the prison/arrest ratio for drugs for Blacks, and the prison/crime ratio for violence and robbery/burglary. Places tend to differ from each other in relatively stable ways over time.

What this all adds up to is to say that there is a great deal going on in places that affects the relationship between reported crime and the social control responses of arrest and incarceration. Even though crime obviously has something to do with incarceration, it is the response to crime, rather than crime itself, that is much more determinate of a place's incarceration rate.

DID MASS IMPRISONMENT REDUCE CRIME?

Many defenders of mass incarceration point to the steep decline in crime after the mid-1990s as evidence of its success. However, as Blumstein says, "Certainly, some researchers argue that the crime drop from 1993 to 2000 was a consequence of the increase in imprisonment during that period, but that argument is challenged by the crime rise from 1985 to 1993, when the imprisonment was growing at least as fast" (Blumstein 2011, p. 95). Crime was going down in the early 1980s as imprisonment was rising, but crime—especially violent crime—went up again in the late 1980s when the rate of increase in imprisonment was at its peak. This fact alone was enough to lead many analysts to dismiss the idea that the net effect of escalating imprisonment was to reduce crime (e.g., Austin and Irwin 1993; Lynch 1999). As Blumstein (e.g., Blumstein 1995; Blumstein 1998) and others argued, either the net effect of imprisonment on crime was positive (not negative), or crime would have risen even more if imprisonment had not risen. However, it was not clear what the alternate sources of higher crime would have been. Steffensmeier and Harer (1993) showed that the trend in violent crime held up even after careful adjustments for the age distribution in the population: violent crime decreased in the early 1980s and then increased as incarceration increased in the late 1980s. Donohue (1998) Shows that crime rates fluctuate often but there is a long-run crime trend involving a steep rise through the late 1970s followed by a slow decline for the next two decades; he concludes that there has doubtless been some incapacitation effect. Trimble (1996) Although the Texas adult incarceration rate was the nation's highest in 1995 and the overall crime rate (primarily theft) declined steeply from third to 15th in ranking, the violent crime rate did not change appreciably.

Prospectively, increased incarceration was justified in cost-benefit terms with the idea that the savings from reduced crime would exceed the costs of incarceration. [11] There has been extensive debate around estimating lambda, the annual crime rate for active offenders and, thus, the number of crimes an incarcerated person would commit per year if free on the street. At the high end was an early study by Zedlewski (1987), who

relied upon a Rand study of incarcerated persons in 1982, concluded, "When summed across appropriate categories, the study found that inmates averaged between 187 and 287 crimes per year exclusive of drug deals" but then goes to point out that these results are skewed with ranges of 1 to 1000. "Half the population committed fewer than 15 crimes per year; *yet 25 percent committed more than 135 crimes per year and 10 percent committed more than 600 crimes annually*."[12] This report received a great deal of criticism (e.g., Zimring and Hawkins 1988). Less inflated estimates of direct incapacitation were generated by DiIulio and Piehl (DiIulio and Piehl 1991; DiIulio John 1990; Piehl and DiIulio Jr 1995; Piehl, Useem and Dilulio 1999). A problem with estimating incapacitation effects from incarcerated offenders is that people who commit a lot of crimes are more likely to get caught for at least one of them, so that the mean number of crimes previously committed per year by incarcerated offenders is much higher than the mean number of crimes committed per year by non-incarcerated offenders. For example, Canela-Cacho, Blumstein and Cohen (1997) reported that free offenders averaged 1-3 robberies and 2-4 burglaries per year, while the values for resident inmates were 10 to 50 times higher. That is, catching and incarcerating criminals who are not already incarcerated is likely to reduce crime less than would be predicted from calculations made on those already incarcerated.

These calculations of crimes directly avoided by incarcerating an offender ignore possible indirect effects on crime, which include deterrence on the one hand and criminogenic processes on the other. If deterrence increases with the number of people incarcerated, then imprisonment could further reduce crime among other people. On the other hand, increasing incarceration rates could actually increase crime if imprisonment makes offenders more likely to commit crime when they are released after incarceration, if imprisoning one group of people makes crime more profitable for others (as is especially true in the illegal drug trade), or if imprisonment of one group reduces the legitimacy of the system or the strength of informal social controls. Most analysts have concluded that high incarceration rates both suppress crime directly through incapacitation and increase crime indirectly through criminogenic consequences of incarceration. The question is how these positive and negative forces balance out. Different scholars have given different answers over time, with most settling on the answer that there is a net negative effect on crime, but it is smaller than might be imagined.

Using standard econometric methods and a Granger test for causal direction, Marvell and Moody (1994) examined data for states 1971-1989 and concluded that prison growth led to lower crime rates but crime rate changes had little impact on prison population growth; they estimated that each prisoner averted an average of 17 crimes, mostly thefts. Translating this into elasticities, they estimate that a 1% increase in imprisonment produced a .16% decrease in crime (i.e. a 10% increase in imprisonment produced a 1.6% decrease in crime), a result that they note is the same as Spelman (1994) achieved using different methods.

In a study that got a lot of popular news coverage, Levitt (1996) used overcrowding litigation as a way of disentangling the mutual effects of crime and incarceration, arguing that court-ordered reductions in prison populations are an exogenous shock that would not be caused by crime. He concluded that a one-prisoner reduction is associated with an increase of fifteen Index I crimes per year and that the social benefits associated with crime reduction equal or exceed the social costs of incarceration for the marginal prisoner. This estimate is quite close to Marvell and Moody's estimate. One important criticism of the logic of Leavitt's study is that the conclusion requires the assumption that people who have spent time in prison and are unexpectedly released are comparable to the people who would be newly-incarcerated if prison sentences were given for more crimes (e.g. Western 2006).[13]

As the prison boom continued and crime declined in the 1990s, analysts continued to agree that imprisonment must have some crime reduction effect. Donohue (1998) reviewed crime trends, showing that crime rates fluctuate often but there is a long-run crime trend involving a steep rise through the late 1970s followed by a slow decline for the next two decade and concluded that there has doubtless been some incapacitation effect. Spelman (2000) summarized the literature, saying that a majority of studies say doubling prison capacity would reduce crime by 20-40% but noting that there were many unresolved analysis problems including simultaneity, specification error and interstate comparison, that the range of estimates is in the awkward middle where prison may or may not be cost effective and that states probably use prisons differently and differ in the marginal impact of more imprisonment. Conklin (2003) also carefully reviewed the evidence regarding the decline in crime in the 1990s, including changes in the official definitions of larceny and assault that could change the official crimes rates, concluding that the crime rate drop was real for murder, robbery, burglary and motor vehicle theft. Even though

there is a puzzle about why incarceration would increase when crime fell in the 1980s, he estimates that 13-54% of the 1990s decline in crime was imprisonment, and that this was the major explanatory factor of those he reviewed, although drug market changes, an improved economy (later in the 1990s), changes in the age structure, declining divorce rates and increased religiosity played a role. But he stresses that a changing age structure was only a small contributor; the decline in age-specific crime rates was more important.

As the crime drop and the imprisonment boom continued, there were a growing number of studies that argued for varying effects of imprisonment rates depending on context. DeFina and Arvanites (2002) estimate 51 state-specific regressions of state-level incarceration rates on state-level crime rates 1971-1998, finding varying relations ranging from positive to negative depending on the state and type of crime. Kovandzic and Vieraitis (2006) examined Florida counties, finding no consistent crime-reduction effect of higher reliance on imprisonment and concluding "counties that relied most heavily on imprisonment as a tool of crime control did not as a result experience greater reductions in crime."

Scholars also began finding that the marginal impact of incarceration on crime depended on how high the incarceration rate already was. Liedka, Piehl and Useem (2006) concluded "Using data from the United States over 30 years, we find strong evidence that the negative relationship between prison and crime becomes less strongly negative as the scale of imprisonment increases." Shepherd (2006) similarly suggests that imprisonment affects vary depending on stage in the process, that marginal incarceration when incarceration is already high can even indirectly raise crime.

As the 2000s neared an end, there was consensus that mass incarceration had reduced crime coupled with doubt about whether the benefit of crime reduction was worth the cost. The largest decrease in crime was in property crime. Bushway and Paternoster (2009) summarize studies which claim an estimate of 10 crimes per year that are avoided per incarcerated inmate. Donohue (2009) reviews the literature and complains that estimates of the impact of imprisonment on crime vary so widely that almost any policy could be justified by the data. Writing in the mid-2000s Blumstein and Wallman (2006) discuss the rise and then fall in crime. They conclude that the most reasonable accounts involve a complex interaction among several of these factors including incarceration,

waning of drug markets, good economy. Blumstein (2011) adds police aggressiveness in removing weapons from young offenders

Blumstein (2011, p. 95) writes "Certainly, some researchers argue that the crime drop from 1993 to 2000 was a consequence of the increase in imprisonment during that period, but that argument is challenged by the crime rise from 1985 to 1993, when the imprisonment was growing at least as fast. Indeed, that decline in the late 1990s was estimated in two different ways (Rosenfeld, 2000 [2006], in an incapacitation analysis, and Spellman, 2000 [2006], in a regression analysis) to have contributed approximately 25% to the dramatic drop of 45% in robbery and homicide. But certainly other processes were at work (including the waning of the crack epidemic and police aggressiveness in taking handguns from the young people who were major contributors to the previous crime rise) to which the growth in incarceration was an augmentation." He goes on to stress the issue of augmentation: that incarcerating people can indirectly create more crime.

A growing body of research has examined the impact of returning prisoners and the criminogenic effects of prison. The idea is that people released from prison might commit more crimes after release than they would have committed had they never been imprisoned; studies of the impact of returning prisoners find that they do increase crime rates (e.g., Vieraitis, Kovandzic and Marvell 2007). DeFina and Hannon (2010) pick up on the issue of counterbalancing negative and positive effects, noting that they will have different timings. The crime reduction effect is immediate; by by denying those currently behind bars the opportunity to commit further offenses. But the crime-promoting effects of incarceration are not limited to the present, but are related the proportion of the population that has experienced incarceration either in the current year or in any past year. Analyzing state-level panel data for 1978–2003 they conclude that the inclusion of just five years of lags for incarceration and prisoner societal reentry rates eliminates any crime-reducing benefits of increased incarceration by the crime-promoting effects associated with the increasing prevalence of ex-prisoners.

Scholars continue to seek to estimate these effects. Whether or not mass incarceration reduced crime (and it seems likely that it had at least some effect on property crime), there is still a question of who benefited from the crime reduction and who bore the costs of the mass incarceration.

Drug control

As we have noted repeatedly, a high percentage of people who are sent to prison have been convicted of drug offenses, which are not part of the crime indexes. It is essentially impossible to find any academic researcher who will argue that the supply side drug war has had a positive effect in reducing the availability of illegal substances or the prevalence of people willing to sell them (Bushway and Reuter 2011). Writing in 2001, Saffer, Chaloupka and Dave (2001) estimated the effect of state criminal justice expenditures and state public health expenditures on deterring illicit drug use, concluding that spending for drug enforcement by police and drug treatment were most effective in deterring drug use, while spending for correctional facilities was never significant. We will consider drug war issues more in a separate chapter. There is also the question of whether illegal drugs create other crime. Conklin (2003, chapter 6) provides a careful review of the relation between drugs and crime. Most drug-related homicides are due to the trade, not the effects of the drugs. Criminals buy drugs at least as often as, and probably more often than, drug addicts do crimes. Drug enforcement itself can increase crime by setting off turf wars between rival suppliers. Despite these general conclusions, Conklin argues, ". . . even though crack use was never a major part of the nation's pattern of drug use, it was closely associated with the serious crimes, especially homicides and robberies, that plagued poverty-stricken urban neighborhoods. Those crimes contributed in an important way to the nation's overall crime problem." (pp. 110-111)

Methodological Issues in Measuring Crime

Police reports

Trying to understand the interplay between crime and imprisonment is complicated by the fact that different measures of crime show different patterns for the crucial period of the 1980s. Longer-term data trends rely on crimes reported to police departments. It is well-recognized by criminologists that variations in police reports of crimes are not a transparent indicator of how much crime there is. Law enforcement agencies vary widely in their institutional capacity to take and record crime complaints. Crimes are more likely to be reported to the police when the public believes the police are likely to respond to the crime. Minor crimes are less likely to be reported in areas with substantial levels of major crime. Law enforcement agencies have their own additional institutional concerns that affect their interest in showing that there is more or less crime in their area. These include the desire to get additional funding from local government or external grants, which creates incentives to

report more crime, and a desire to appear effective in crime control, which creates incentives to report less crime. Similarly, institutional concerns lead to variations in the intensity of enforcement of different kinds of crimes and thus to the mix of types of crimes they are especially likely to detect.

Apart from these factors which affect police agencies' attention to discovering and reporting different kinds of crimes, data in the Uniform Crime Reports suffers from the simple failure to report crimes or arrests. This is more common in smaller rural agencies but also happens in cities. For example, all the agencies in the entire state of Illinois except the Chicago city police gradually stopped reporting crime or arrests after 1992 and Chicago stopped reporting drug arrests; arrest and crime data for Illinois are simply useless after 1992. A more common problem is that agencies report in some years and not others.[14] If totals for counties (and thus metro areas and states) are not adjusted for non-reporting, areas will appear to have lower crime or arrest rates because of reporting practices. To try to compensate for this problem, we use interpolation algorithms to estimate the missing information based on the proportion of crimes or arrests an agency or county accounted for when it did report. If there is too little data to justify interpolation, the case is treated as missing.

Since 1973, a second source of crime data has been victimization surveys, in which a random sample of the general population is asked for their experience with crime. These do not always give the same trends. Victim and police reports show broadly similar trends across time for robbery (Figure 22), burglary (Figure 23) and motor vehicle theft (Figure 24). For larceny/theft (Figure 25), victimization data show a steep decline beginning in 1978, while police reports showed a rise between 1984 and 1992. For aggravated assault (Figure 26) and rape (Figure 27), police reports rose 1975-1992 while victim reports declined. The police do not report simple assaults as index crimes, but if simple assaults are included in the victim reports, then the victim and police assault report trends look more similar after 1990 (Figure 28), but it is still the case that police reports of assaults rose 1980-1986 while victim reports were declining. Because assaults are much more common than rapes and murders, the trends for all violent crimes combined (Figure 29) are very similar to the assault trends.

Arrest statistics are often used as a proxy for crime, but it must always be remembered that an arrest is always a social occasion involving at least two parties—the arrestee and the arresting officer. Law enforcement

officers have considerable discretion in deciding whether to make an arrest at all for all but the most serious offenses, and they have considerable discretion in deciding how to charge an offense. Many states have enacted laws to require arrests in the case of domestic disputes, but even in this instance, officers encountering a mutual fight can exercise discretion about whom to arrest. Much of the variation over time and place in assault arrests arises from differences in how fights of various sizes are responded to. The importance of this range is clearest for assault—a "violent" crime. Many people in the United States view fist fights between boys and men as a normal masculine activity. It is not uncommon for a fight to be ignored or broken up without any arrest at all. In a previous research project (Oliver and Myers 1999), we identified 76 fights involving 10 or more people in one year of Madison police reports, most of these occurring at bar closing time in the campus area. Many of these fights results in no arrest. The police concentrated on dispersing the crowd and preventing further disorder, rather than risking confrontation by trying to make arrests. Fights are often charged as disorderly conduct, and a simple assault with no serious injury is not an index crime. A mutual fist fight that results in some cuts and bruises can result in a range of legally sanctioned responses by law enforcement ranging from ignoring it entirely or a simple warning to formal charges ranging from disorderly conduct through simple assault to aggravated assault.

The distinction between a simple assault and an aggravated assault with no weapon in the Uniform Crime Reports hinges on whether the injuries are "serious"—a factor that has a gray area on the border between obviously not serious and obviously serious—and the UCR Handbook devotes three pages to trying to define the difference while ultimately concluding that classification can often be difficult (Federal Bureau of Investigation 2004, pp. 25-27). One of the participants may be identified as the aggressor and the other as a victim, leading to asymmetric treatment, but it is not uncommon for both (or all) participants in a fight to be charged with assaulting each other. Again, the UCR handbook acknowledges this problem and notes that police will often need to count everyone in a fight as both victim and perpetrator for the purposes of crime statistics, as well as again noting that the same fight may involve a variety of injuries and a mixture of simple and aggravated assaults (i.e. a mixture of index crimes and non-index crimes). The UCR handbook also contains this statement on p. 24: "Occasionally, it is the practice of local jurisdictions to charge assailants in assault cases with assault and battery, disorderly conduct, domestic violence, or simple assault even though a knife, gun, or other weapon was used in the incident. This type

of offense must be reported to the UCR Program as aggravated assault." Again, the UCR program explicitly acknowledges the huge variation in local law enforcement practices with respect to charging assaults, and engages in what may seem official wishful thinking in stating that police "must" report an incident differently to the UCR than how it was charged locally.

Assault is the most extreme case, but there is discretion and definitional ambiguity in most offense categories. A purse-snatching is a theft, but the reporting guidelines for the Uniform Crime Report say that it can be classified as a robbery if the encounter involves some sort of assault. Quoting the UCR Handbook (p.23) "The category of Robbery—Strong-arm—Hands, Fists, Feet, etc., (3d) includes muggings and similar offenses in which only personal weapons such as hands, arms, feet, fists, and teeth are employed or their use is threatened to deprive the victim of possessions. In the absence of force or threat of force, as in pocket-picking or purse-snatching, the offense must be classified as larceny-theft rather than robbery. However, if in a purse-snatching or other such crime, force or threat of force is used to overcome the active resistance of the victim, the offense must be classified as strong-arm robbery." Examples that illustrate this are pushing a woman to the ground in a purse-snatching, or punching a clerk who tries to stop a shoplifting. Borderline cases would involve minor lacerations or bruises resulting from a purse-snatching.

RACIAL CLASSIFICATIONS

The main body of the text reported the problem that Hispanics are officially counted as White in arrest statistics unless they are so manifestly not White that they get counted as Black or, perhaps, Native or in rare cases Asian. This not only makes it impossible to study Hispanic arrests, it distorts Black/White comparisons because places differ markedly in the proportion of "White" arrestees who are Hispanic. Apart from this huge issue, any official classification of race is always messy because many people are of mixed descent and cannot be readily classified on the basis of personal appearance. The racial classifications in arrest statistics are based on the arresting officer's perception and arresting officers vary greatly in their own classification rubrics. Many local police agencies in my area make liberal use of the "unknown" race category in their local data, and I assume southern Wisconsin is not unusual in this. The Uniform Crime Report does not report an "unknown" race category, so different actors along the way have to make decisions about how to assign a race to everyone the arresting officer

was unable or unwilling to classify. The Black/White distinction is probably subject to the least distortion in reporting, but even this will vary.

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List of Tables

TABLE 1. R2 FOR REGRESSION OF ARREST AND PRISON SENTENCE RATES ON CRIME RATES

R2 for regression of arrest and prison sentence rates on crime rates

	Arrests	Prison Sentences		
Crime	Metro	Metro	Non-metro	All
Violence	.124	0.208	0.454	0.239
Rob/burg	.411	0.304	0.291	0.328
Theft	.314	0.039	0.009	0.048
# Areas	165	158	21	179

Notes: Regression based on indicated number of areas and 18 years 1985-2002.
Rates square-root transformed to reduce skew.
Hispanics are grouped with Whites in arrest records.

TABLE 2. R2 FOR REGRESSION OF PRISON SENTENCE RATES ON ARREST RATES

R2 for regression of prison sentence rates on arrest rates, metro areas

Crime	Black	White+Hispanic	All Races
Drug	0.237	0.368	0.294
Violence	0.205	0.168	0.134
Rob/burg	0.284	0.179	0.155
Theft	0.040	0.006	0.012
Other	0.045	0.062	0.039

Notes: Regression based on 169 metro areas and 18 years 1985-2002.
Rates square-root transformed to reduce skew.
Hispanics are grouped with Whites in arrest records.

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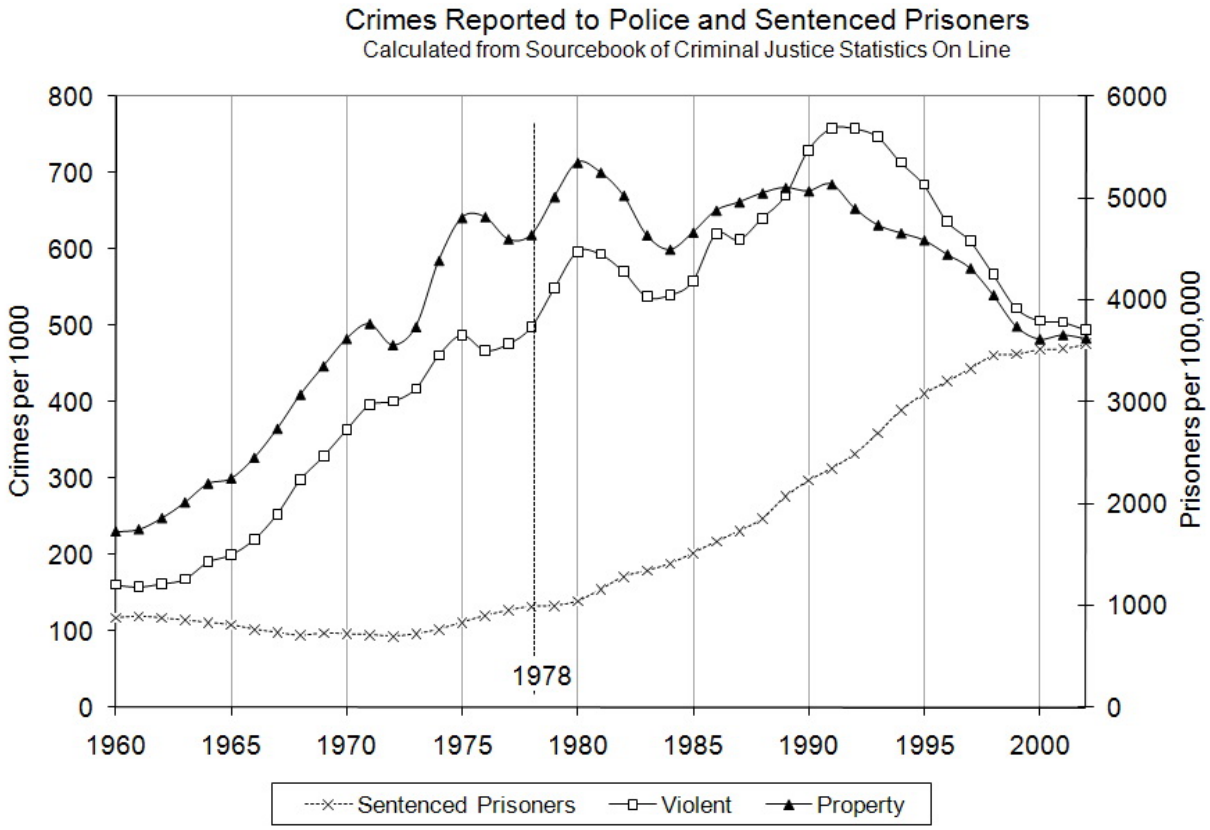


FIGURE 1. CRIMES REPORTED TO POLICE AND SENTENCED PRISONERS 1960-2002

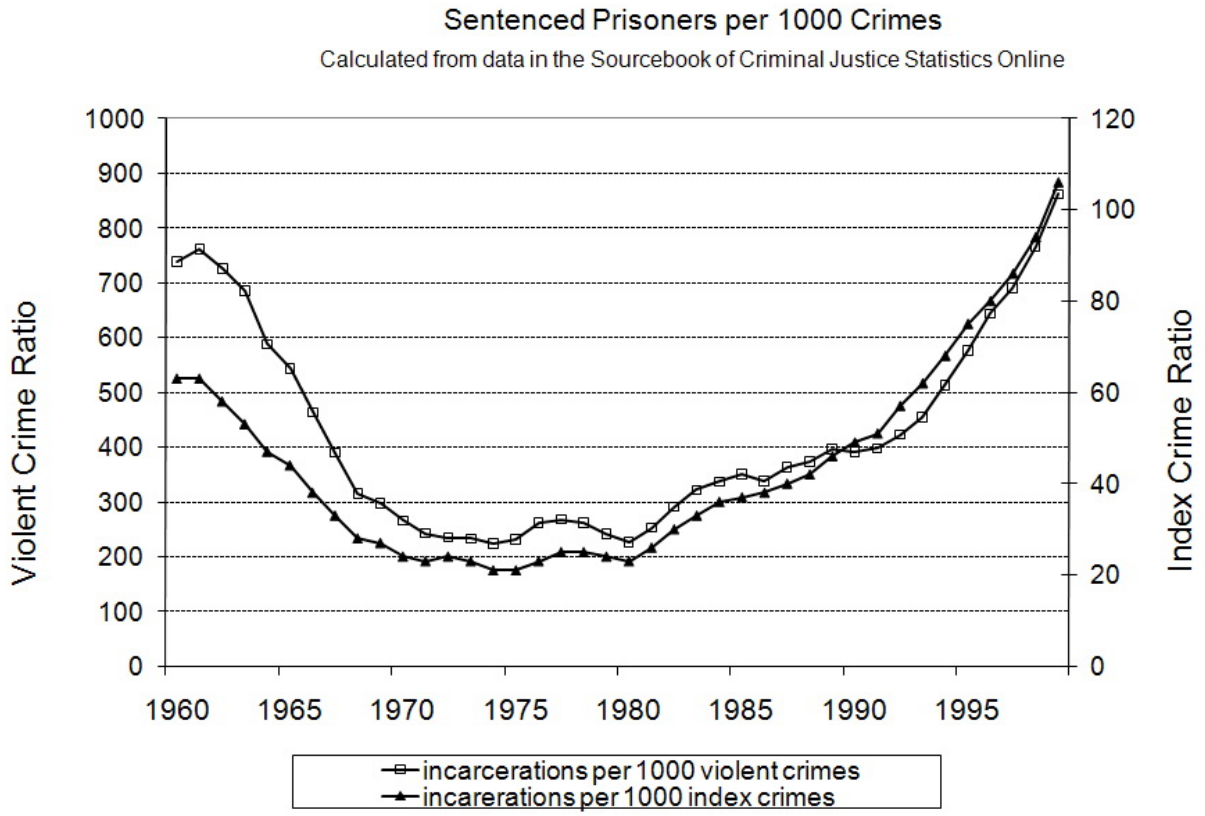
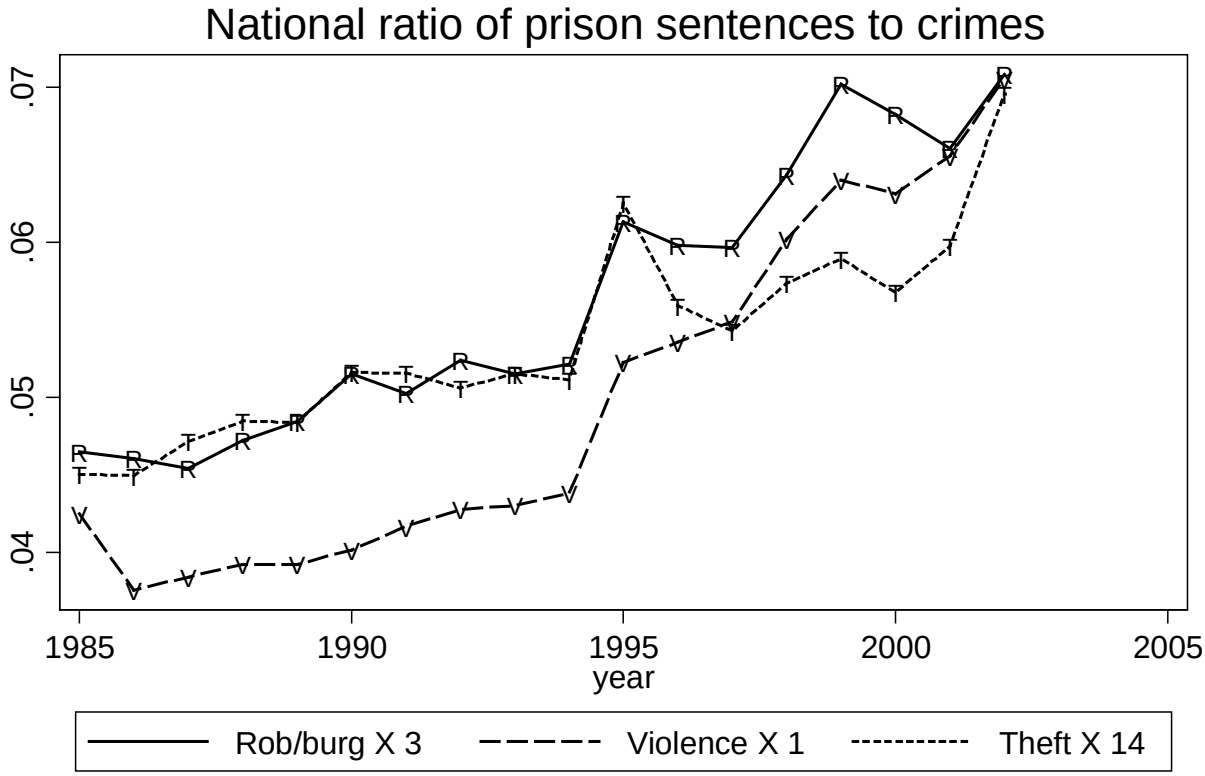
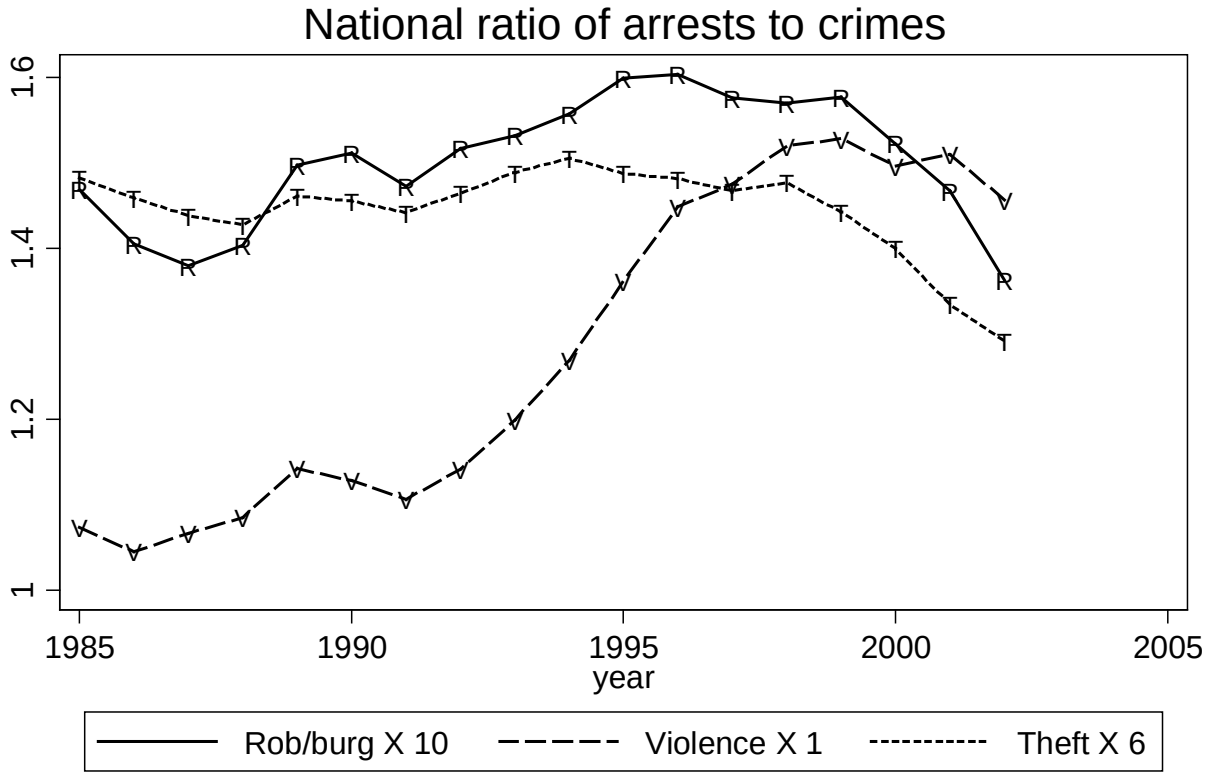


FIGURE 2. SENTENCED PRISONERS PER 1000 CRIMES



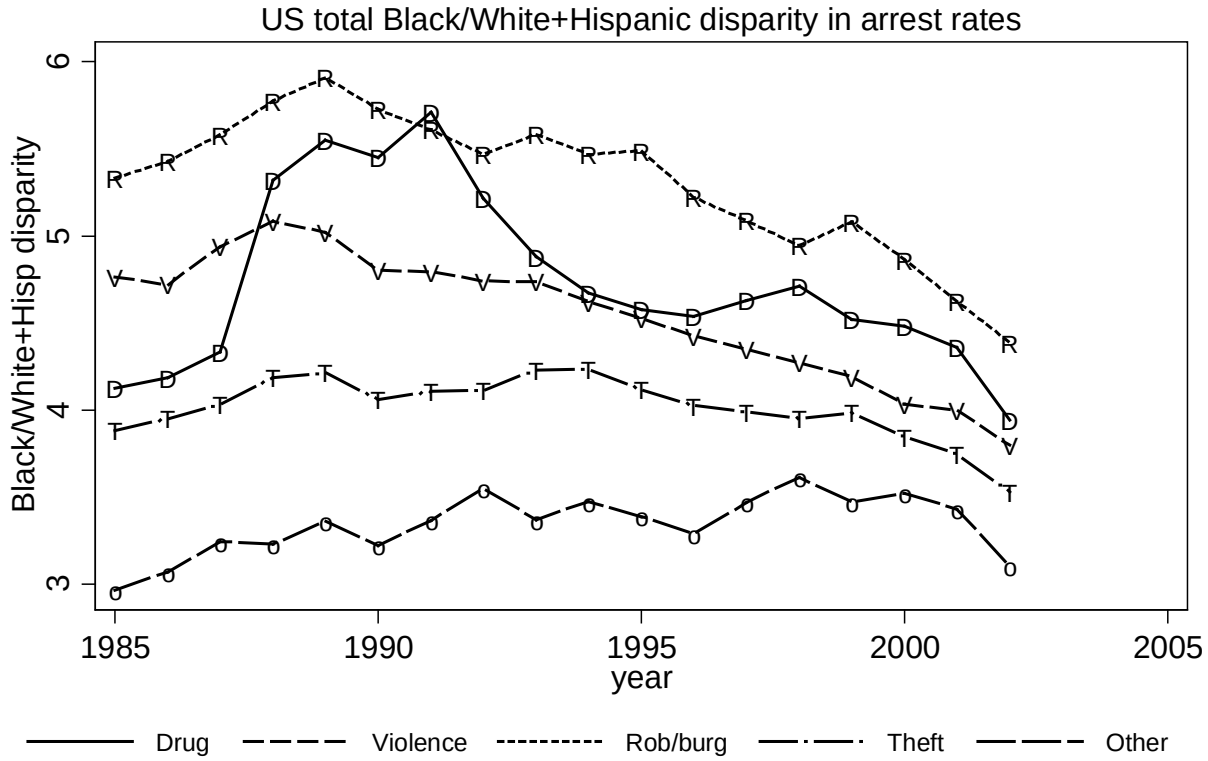
Note: Ratios for robbery/burglary and theft are multiplied by a constant to permit comparisons of trends.
179 areas with complete crime and prison admission data, metro and nonmetro

FIGURE 3. NATIONAL RATIO OF PRISON SENTENCES TO CRIMES



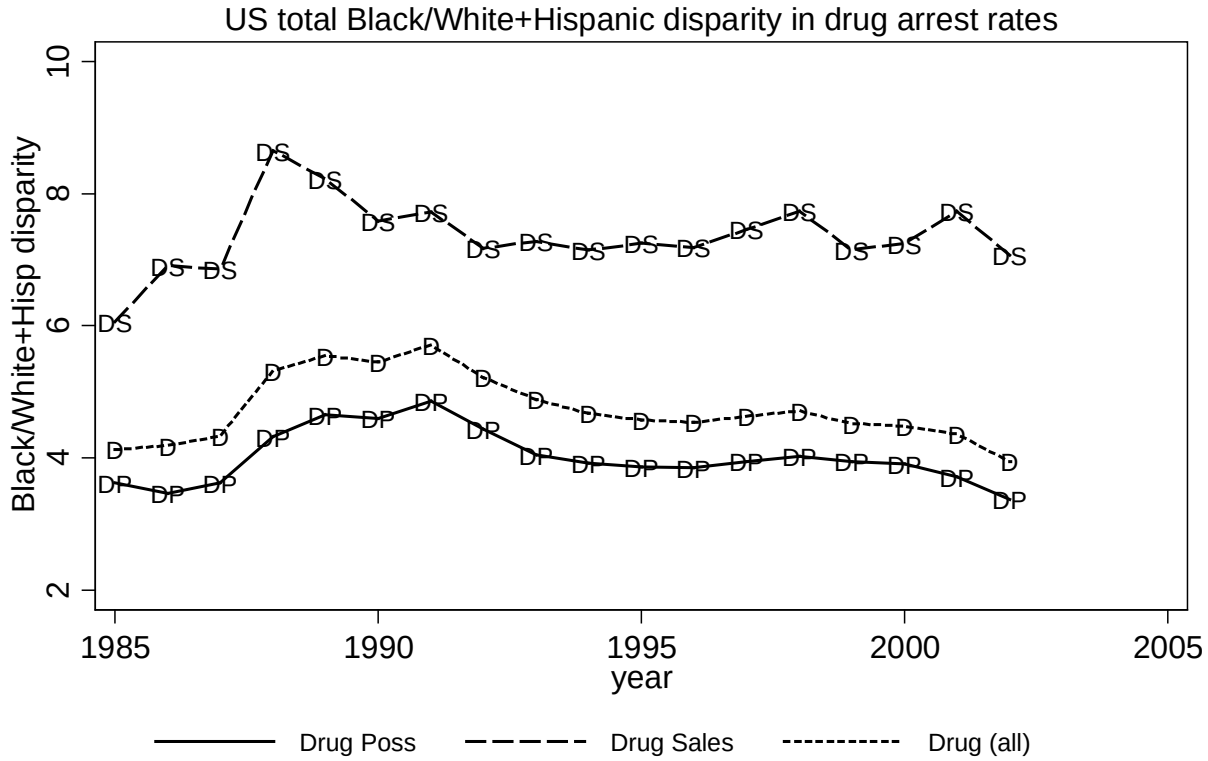
Note: Ratios for robbery/burglary and theft are multiplied by a constant to permit comparisons of trends.
165 metro areas with complete crime, arrest and prison admission data, metro only

FIGURE 4. NATIONAL RATIO OF ARRESTS TO CRIMES



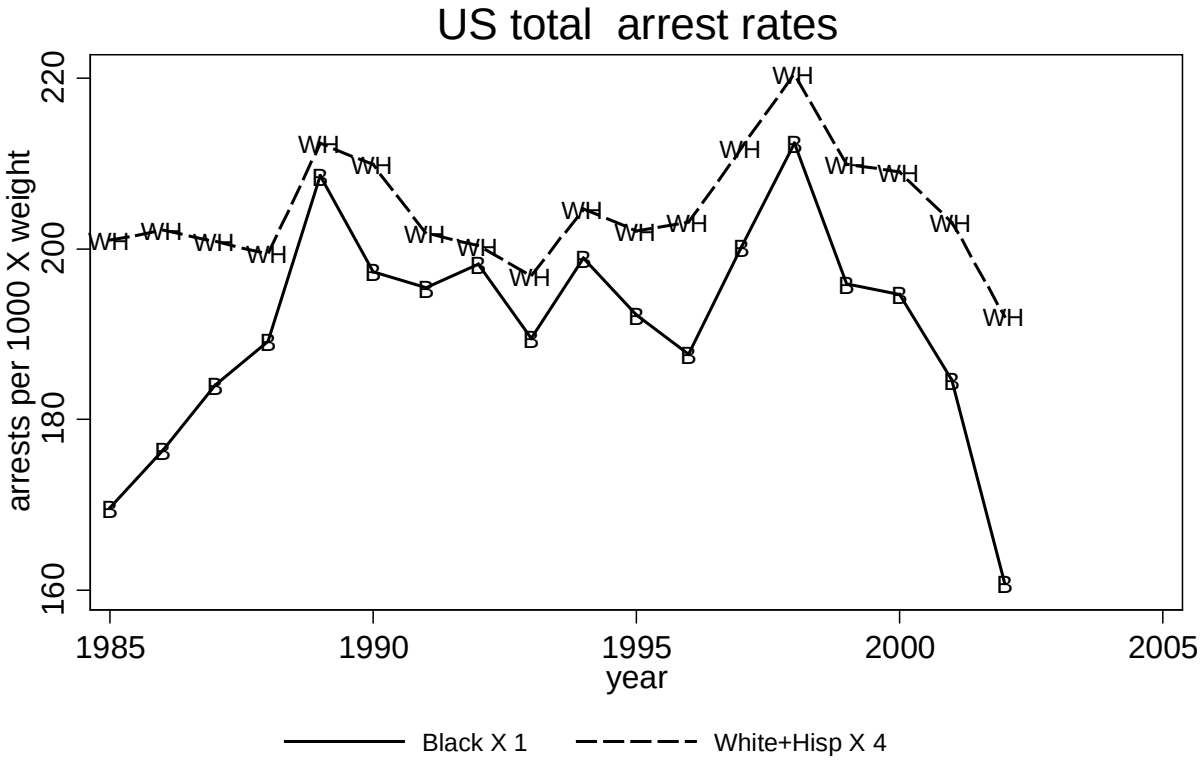
165 metro areas with complete crime, arrest and prison admission data, metro only
Hispanics are combined with Whites in arrest data.

FIGURE 5. US TOTAL BLACK/WHITE+HISPANIC DISPARITY IN ARREST RATES



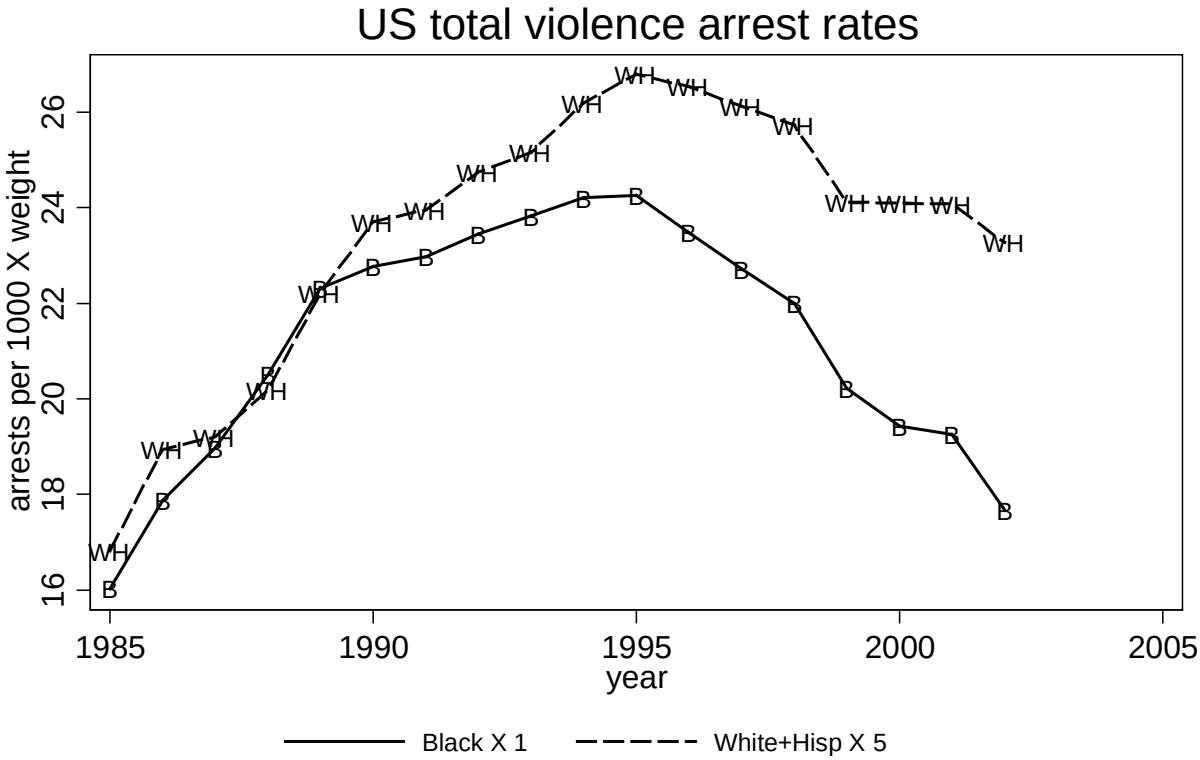
165 metro areas with complete crime, arrest and prison admission data, metro only
Hispanics are combined with Whites in arrest data.

FIGURE 6. US TOTAL BLACK/WHITE+HISPANIC DISPARITY IN DRUG ARREST RATES



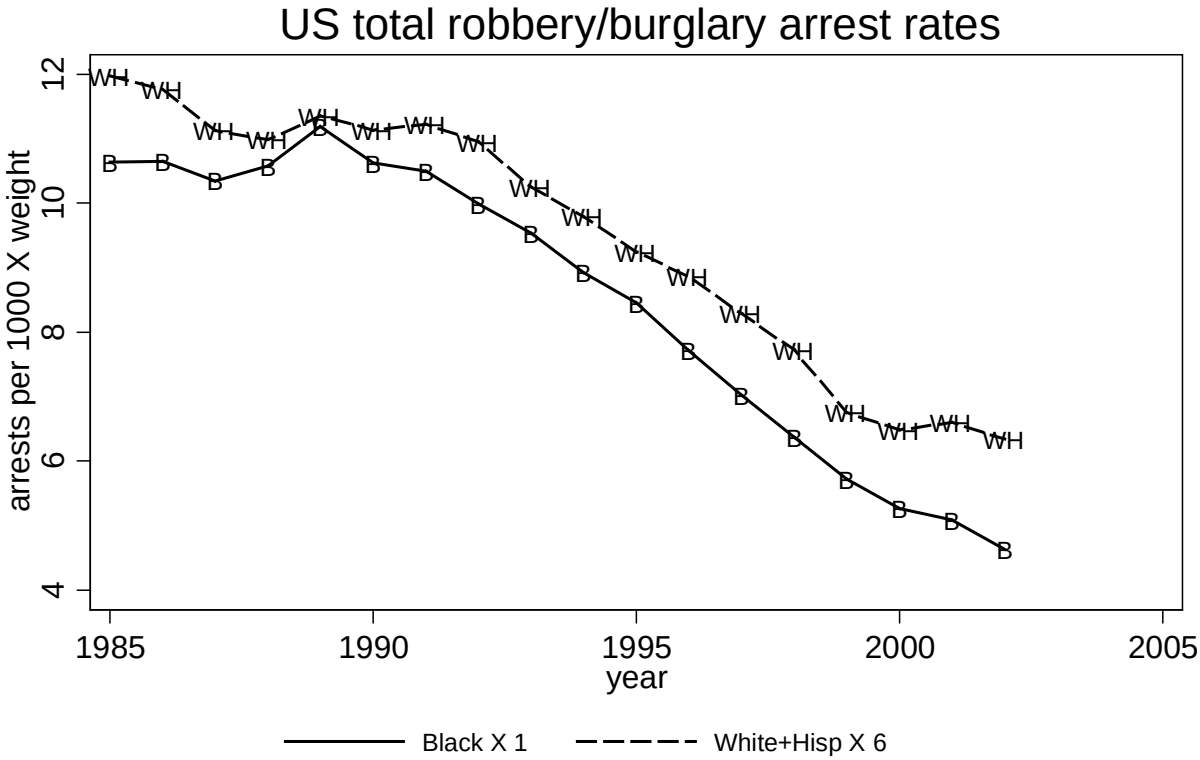
Note: rates are multipled by constants to permit comparisons of trends across races.
165 metro areas with complete crime, arrest and prison admission data, metro only

FIGURE 7. US TOTAL ARREST RATES



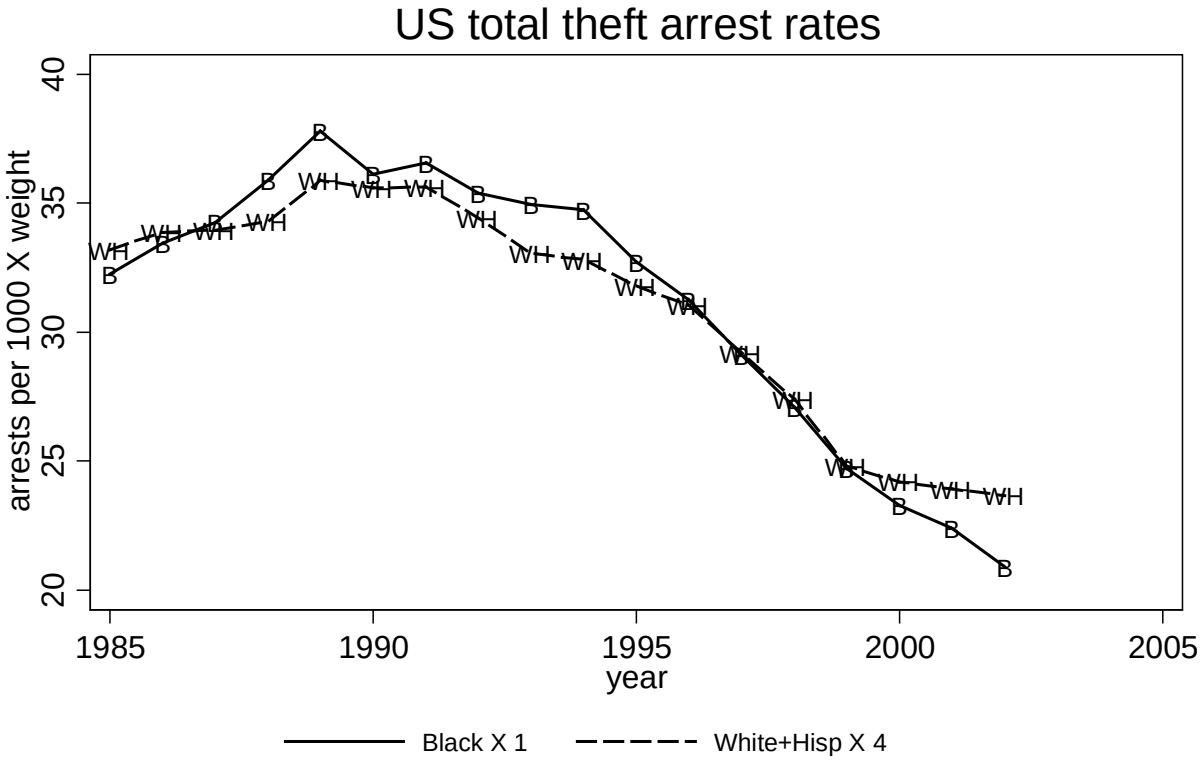
Note: rates are multipled by constants to permit comparisons of trends across races.
165 metro areas with complete crime, arrest and prison admission data, metro only

FIGURE 8. US TOTAL VIOLENCE ARREST RATES



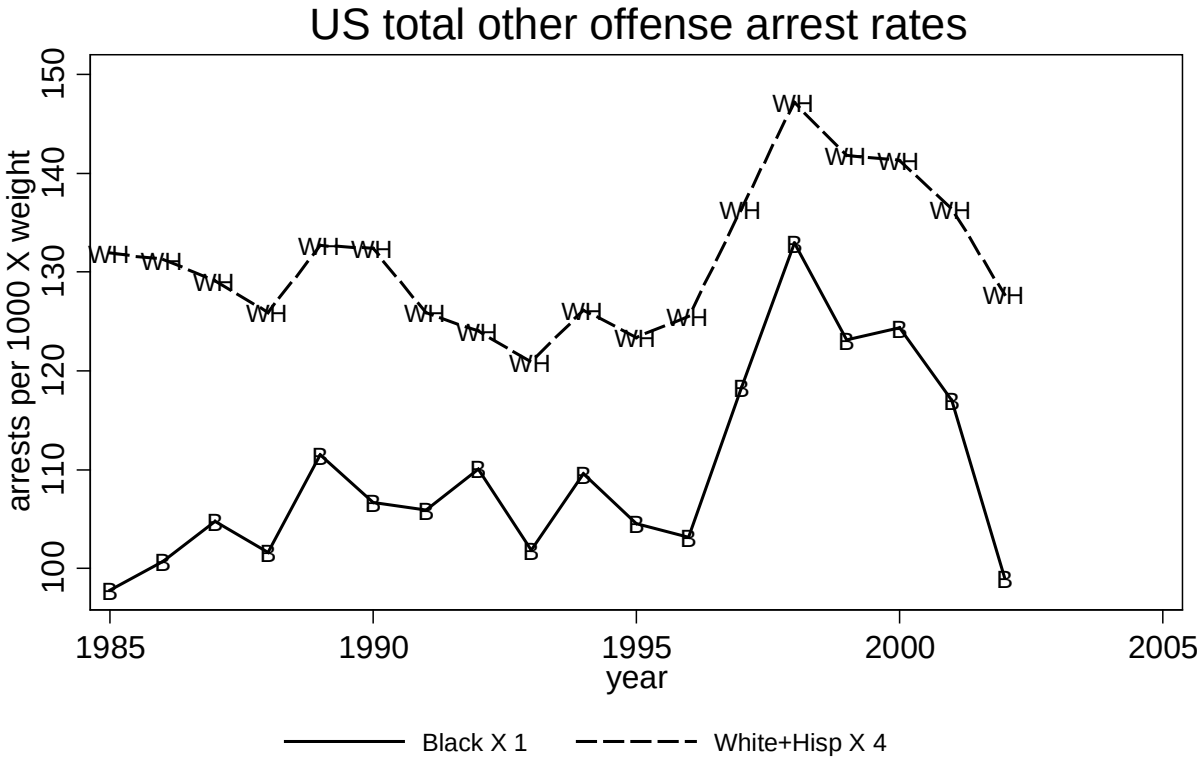
Note: rates are multipled by constants to permit comparisons of trends across races.
165 metro areas with complete crime, arrest and prison admission data, metro only

FIGURE 9. US TOTAL ROBBERY/BURGLARY ARREST RATES



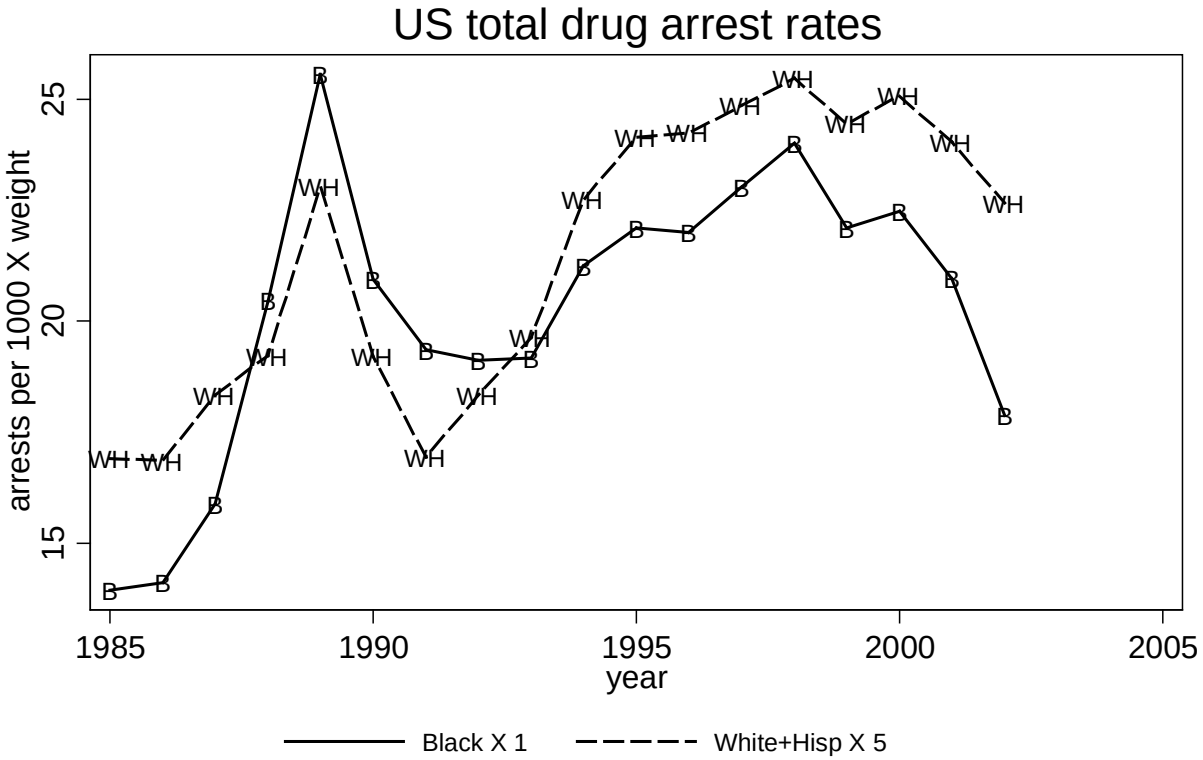
Note: rates are multipled by constants to permit comparisons of trends across races.
165 metro areas with complete crime, arrest and prison admission data, metro only

FIGURE 10. US TOTAL THEFT ARREST RATES



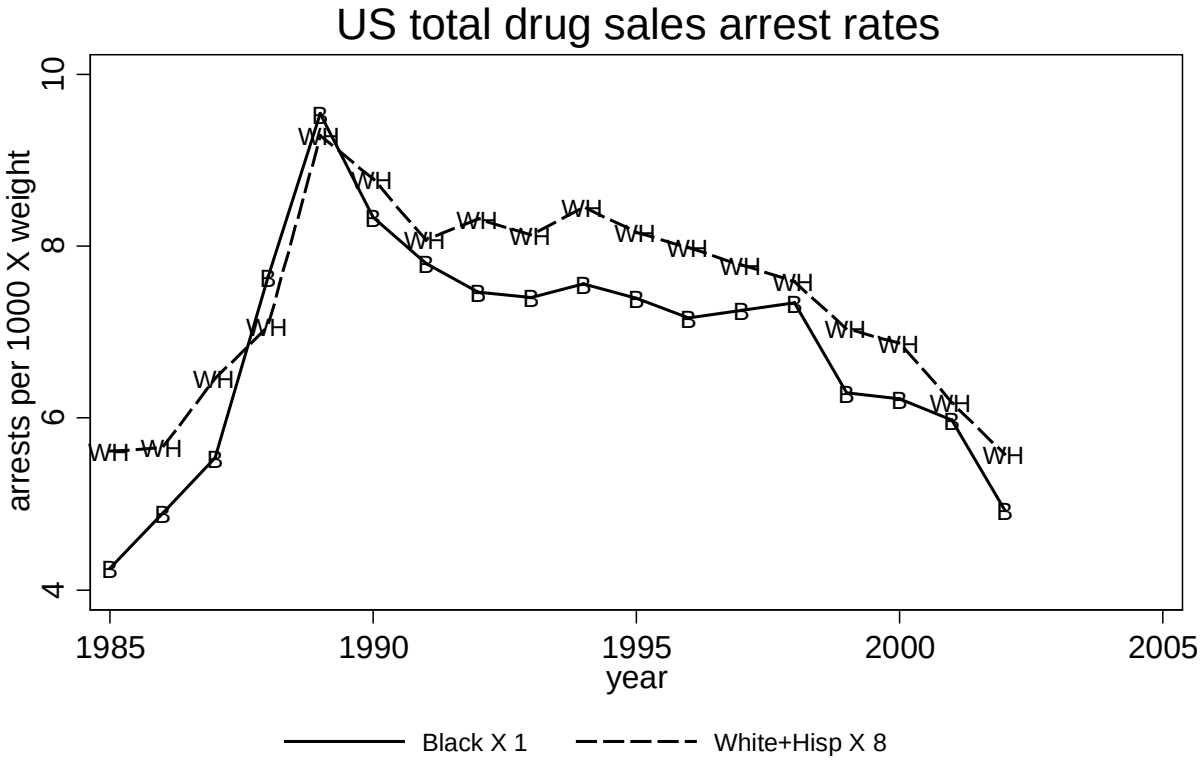
Note: rates are multipled by constants to permit comparisons of trends across races.
165 metro areas with complete crime, arrest and prison admission data, metro only

FIGURE 11. US TOTAL OTHER OFFENSE ARREST RATES



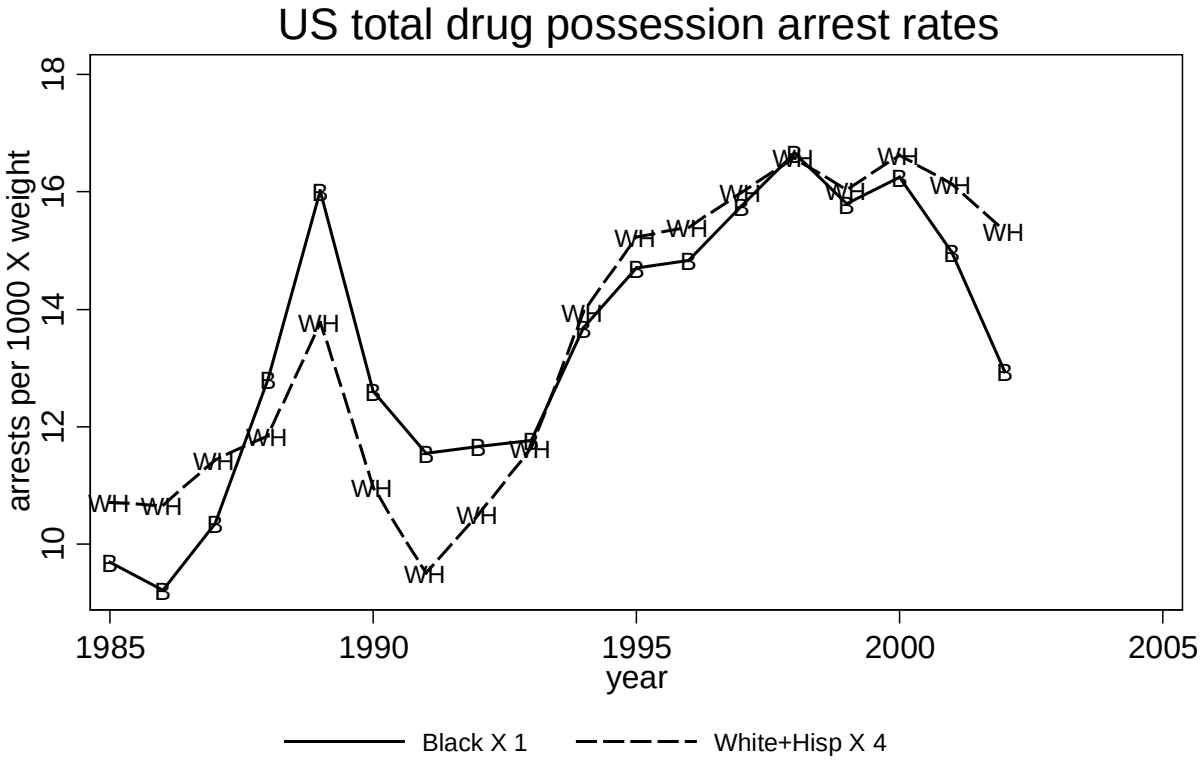
Note: rates are multipled by constants to permit comparisons of trends across races.
165 metro areas with complete crime, arrest and prison admission data, metro only

FIGURE 12. US TOTAL DRUG ARREST RATES



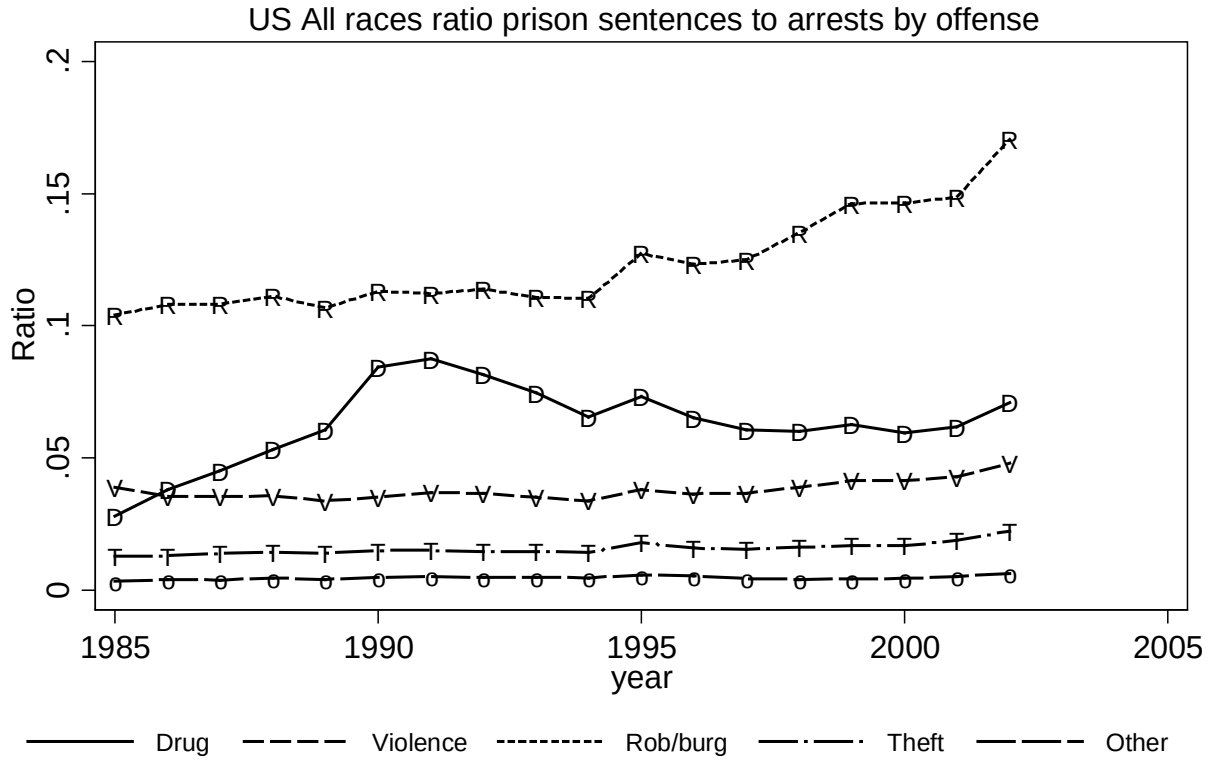
Note: rates are multipled by constants to permit comparisons of trends across races.
165 metro areas with complete crime, arrest and prison admission data, metro only

FIGURE 13. US TOTAL DRUG SALES ARREST RATES



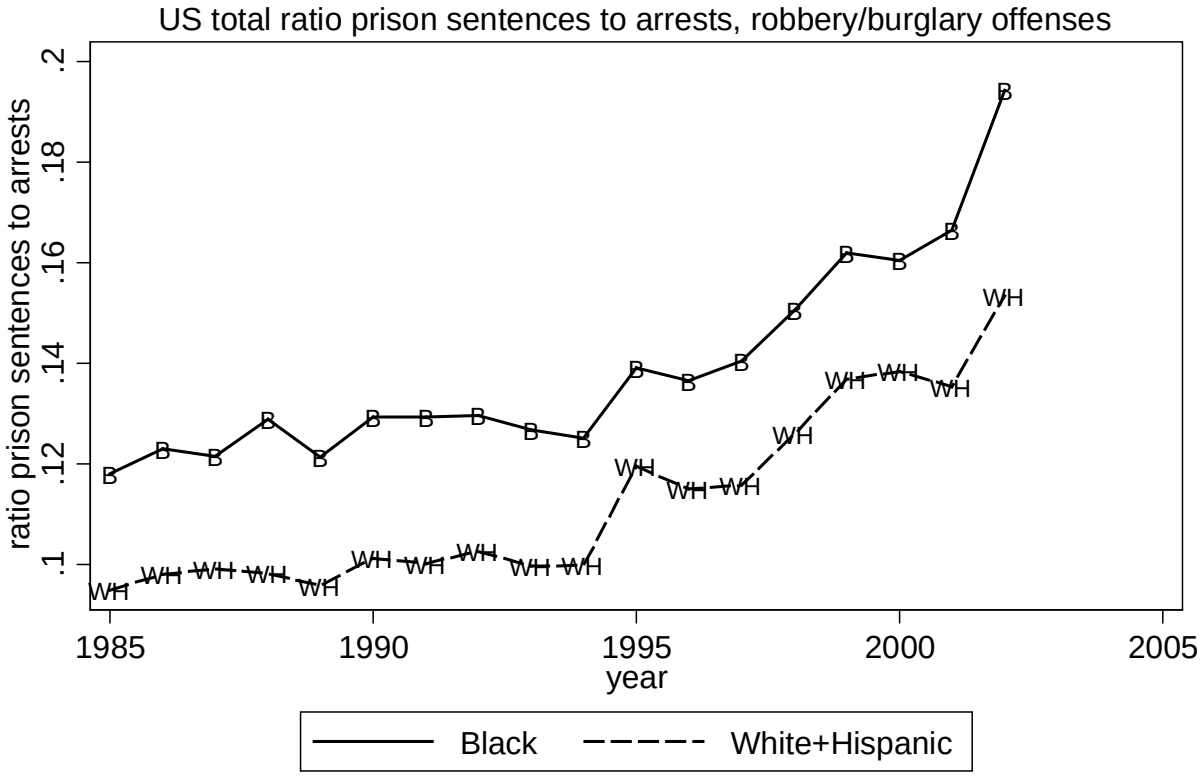
Note: rates are multipled by constants to permit comparisons of trends across races.
165 metro areas with complete crime, arrest and prison admission data, metro only

FIGURE 14. US TOTAL DRUG POSSESSION ARREST RATES



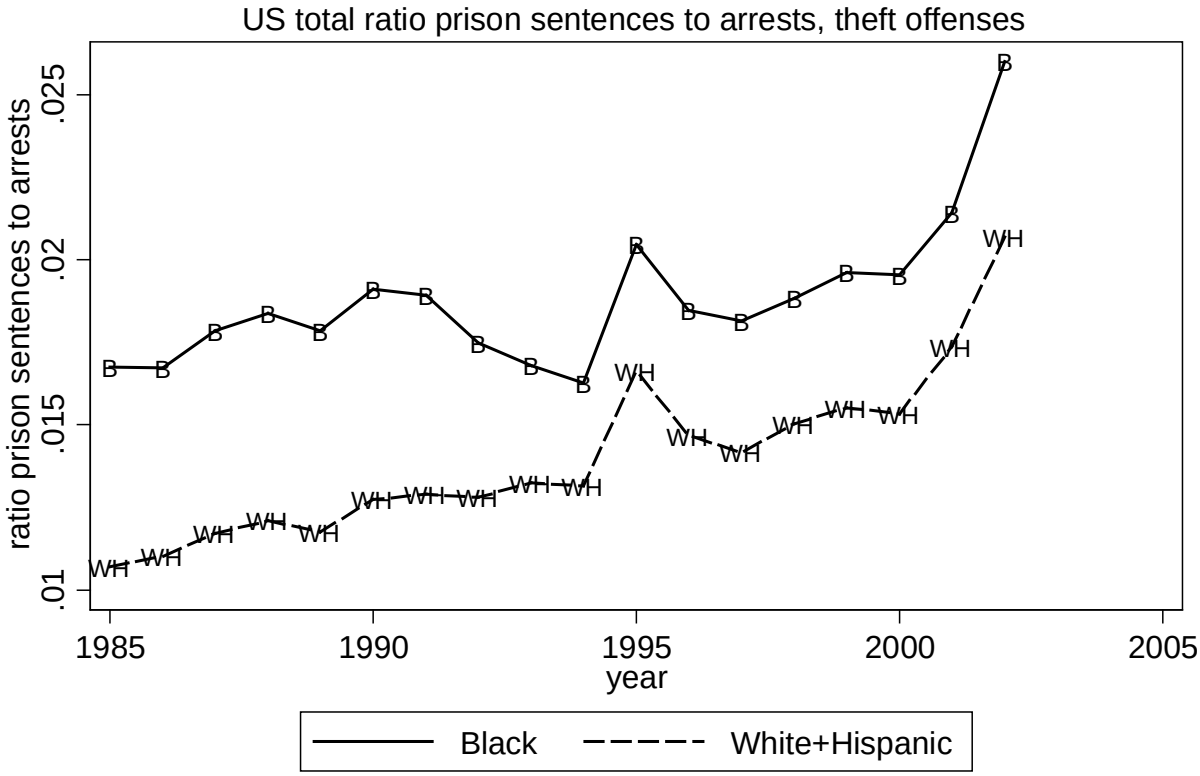
165 metro areas with complete crime, arrest and prison admission data, metro only
Hispanics are combined with Whites in arrest data.

FIGURE 15. US ALL RACES RATIO PRISON SENTENCES TO ARREST BY OFFENSE



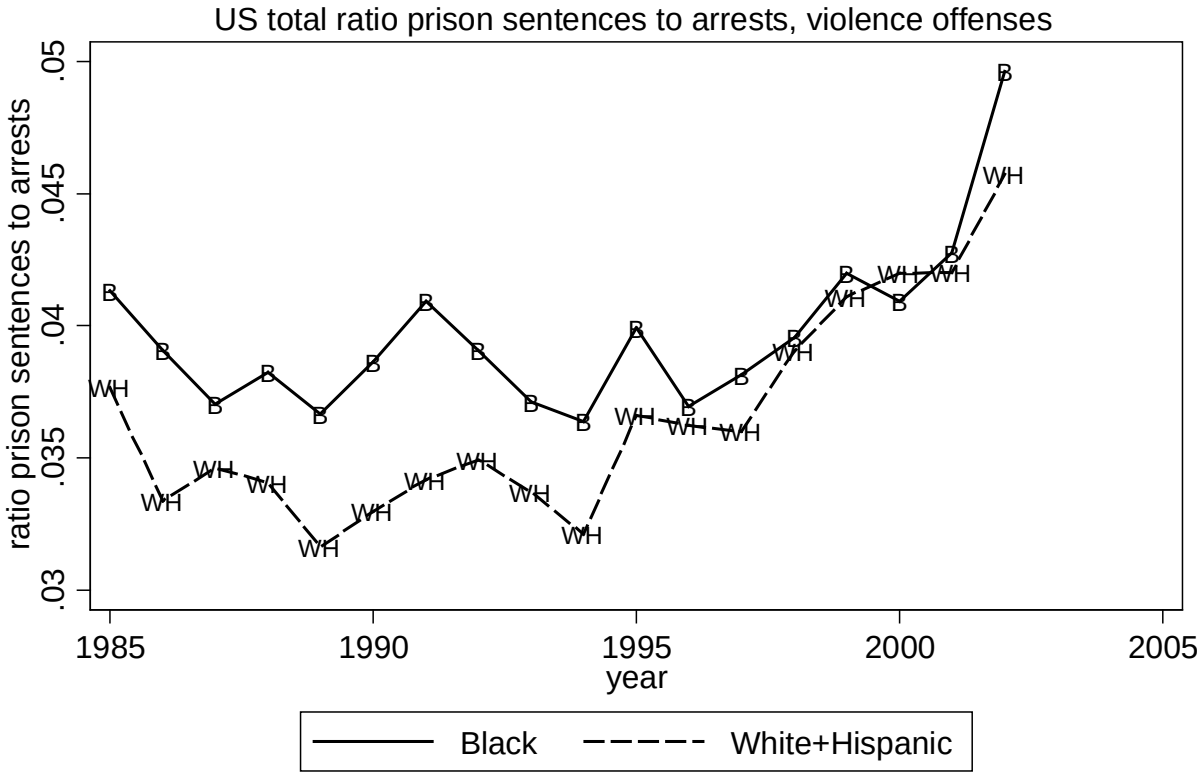
165 metro areas with complete crime, arrest and prison admission data, metro only
Hispanics are combined with Whites in arrest data.

FIGURE 16. US TOTAL RATIO PRISON SENTENCES TO ARRESTS, ROBBERY/BURGLARY OFFENSES



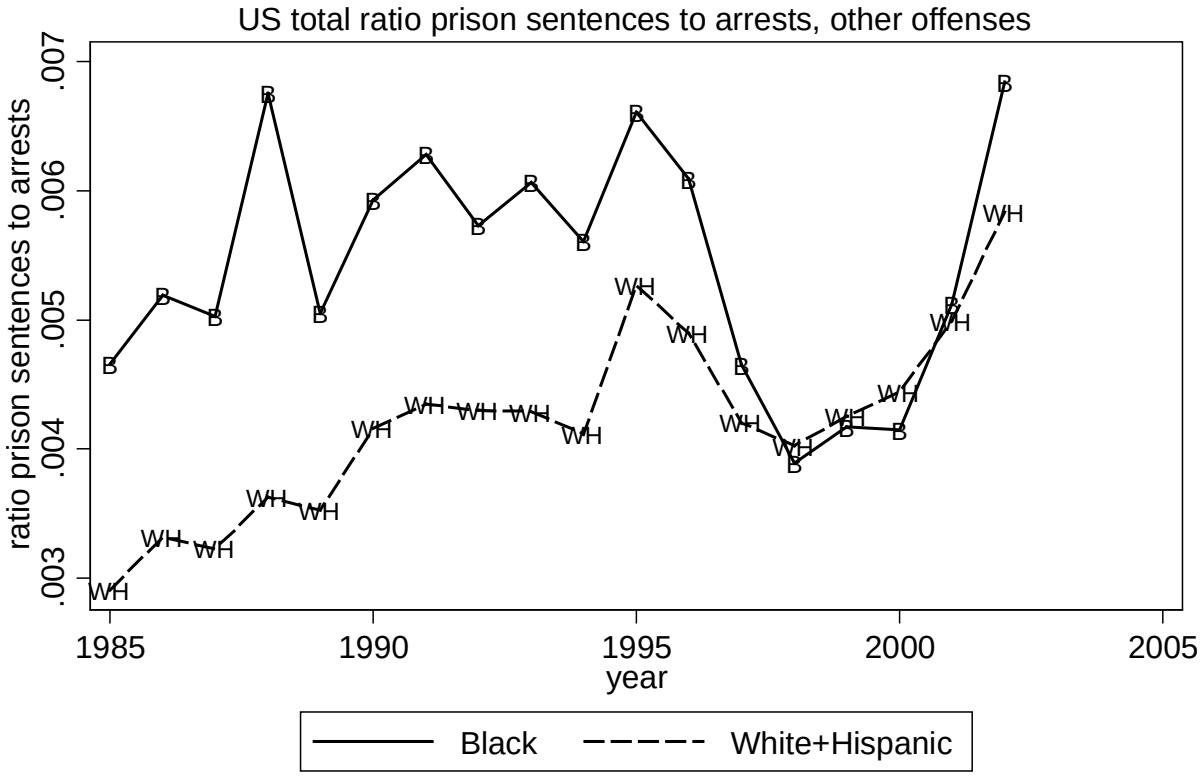
165 metro areas with complete crime, arrest and prison admission data, metro only
Hispanics are combined with Whites in arrest data.

FIGURE 17. US TOTAL RATIO PRISON SENTENCES TO ARRESTS, THEFT OFFENSES



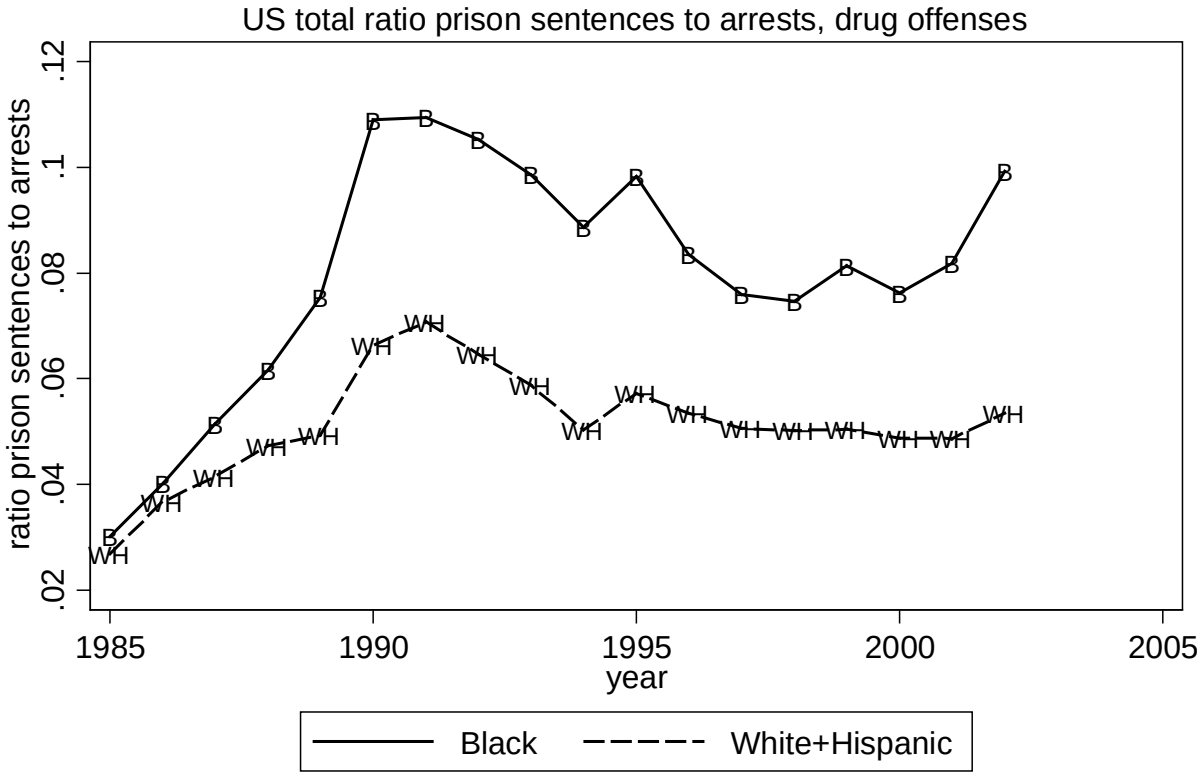
165 metro areas with complete crime, arrest and prison admission data, metro only
Hispanics are combined with Whites in arrest data.

FIGURE 18. US TOTAL RATIO PRISON SENTENCES TO ARRESTS, VIOLENCE OFFENSES



165 metro areas with complete crime, arrest and prison admission data, metro only
Hispanics are combined with Whites in arrest data.

FIGURE 19. US TOTAL RATIO PRISON SENTENCES TO ARRESTS, OTHER OFFENSES



165 metro areas with complete crime, arrest and prison admission data, metro only
Hispanics are combined with Whites in arrest data.

FIGURE 20. US TOTAL RATIO PRISON SENTENCES TO ARRESTS, DRUG OFFENSES

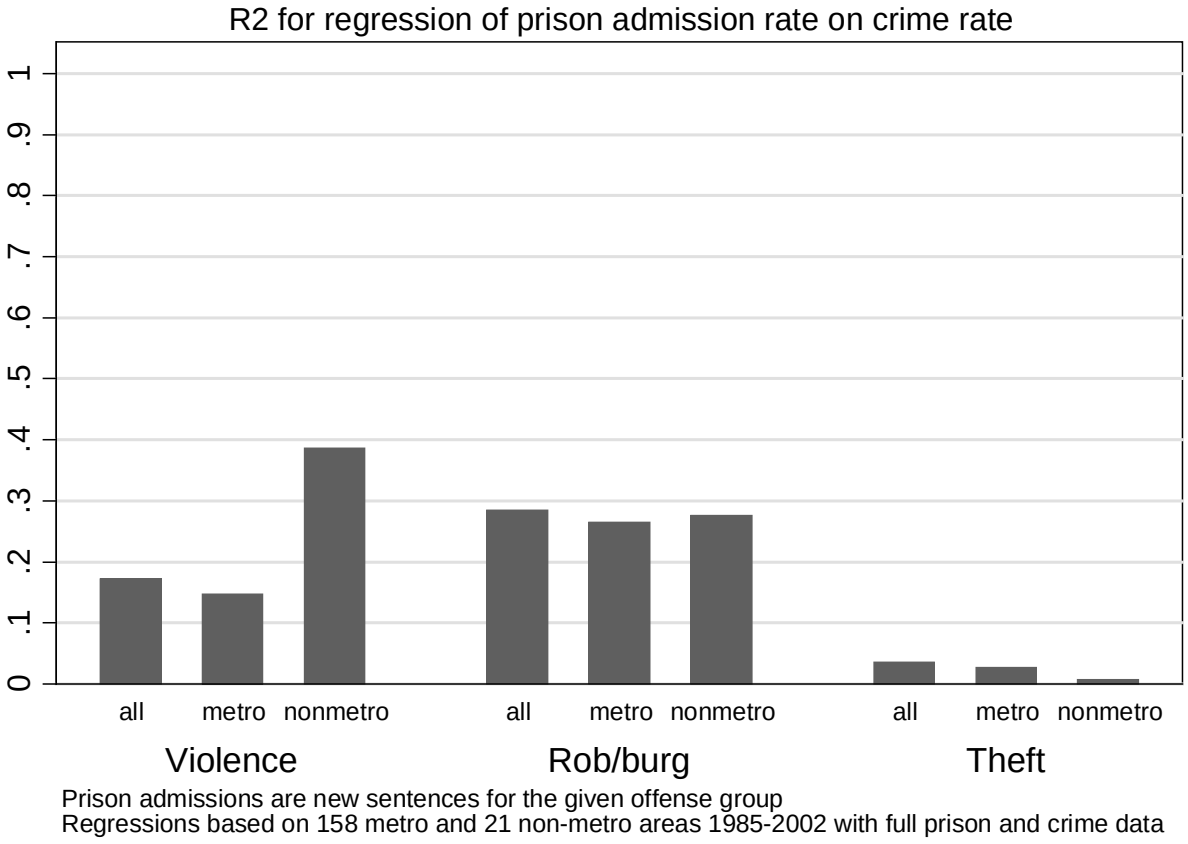


FIGURE 21. R2 FOR REGRESSION OF PRISON ADMISSION RATE ON CRIME RATE FOR LOCAL AREAS

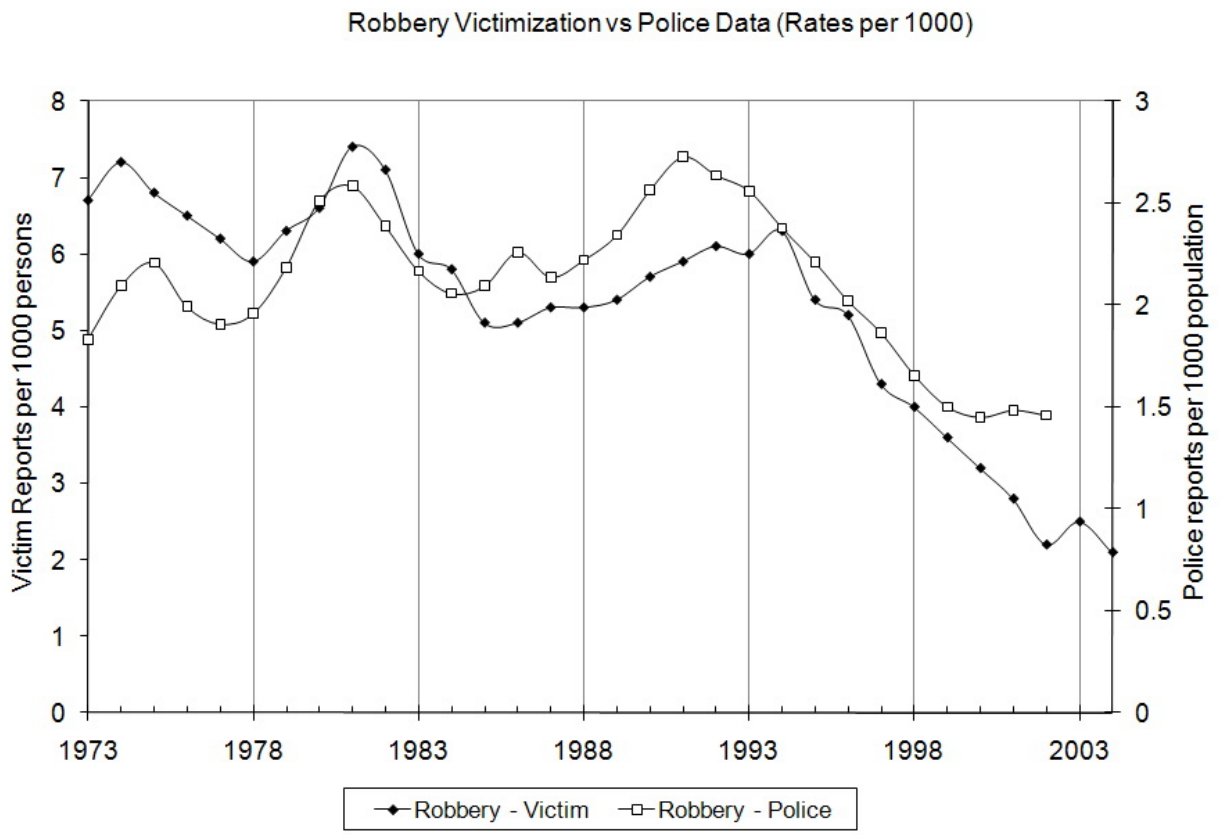


FIGURE 22. ROBBERY VICTIMIZATION VS POLICE DATA

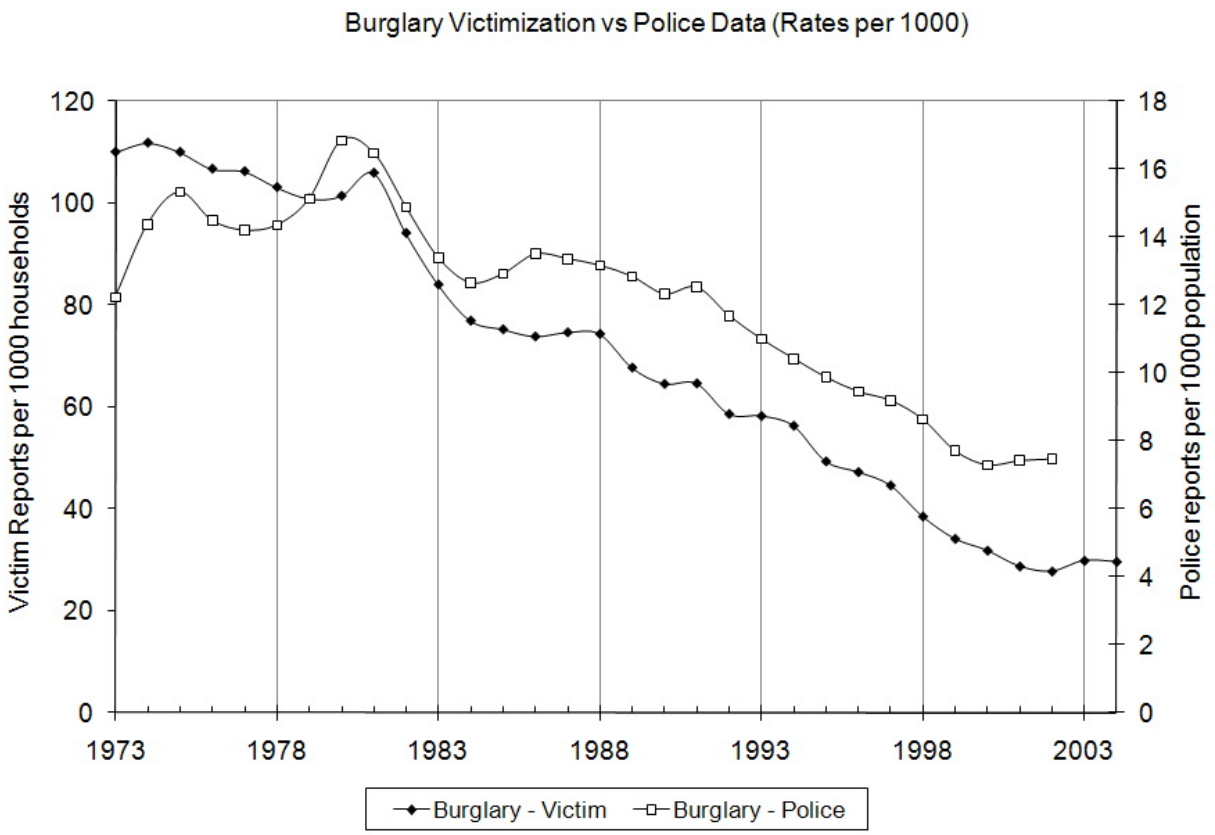


FIGURE 23. BURGLARY VICTIMIZATION VS POLICE DATA

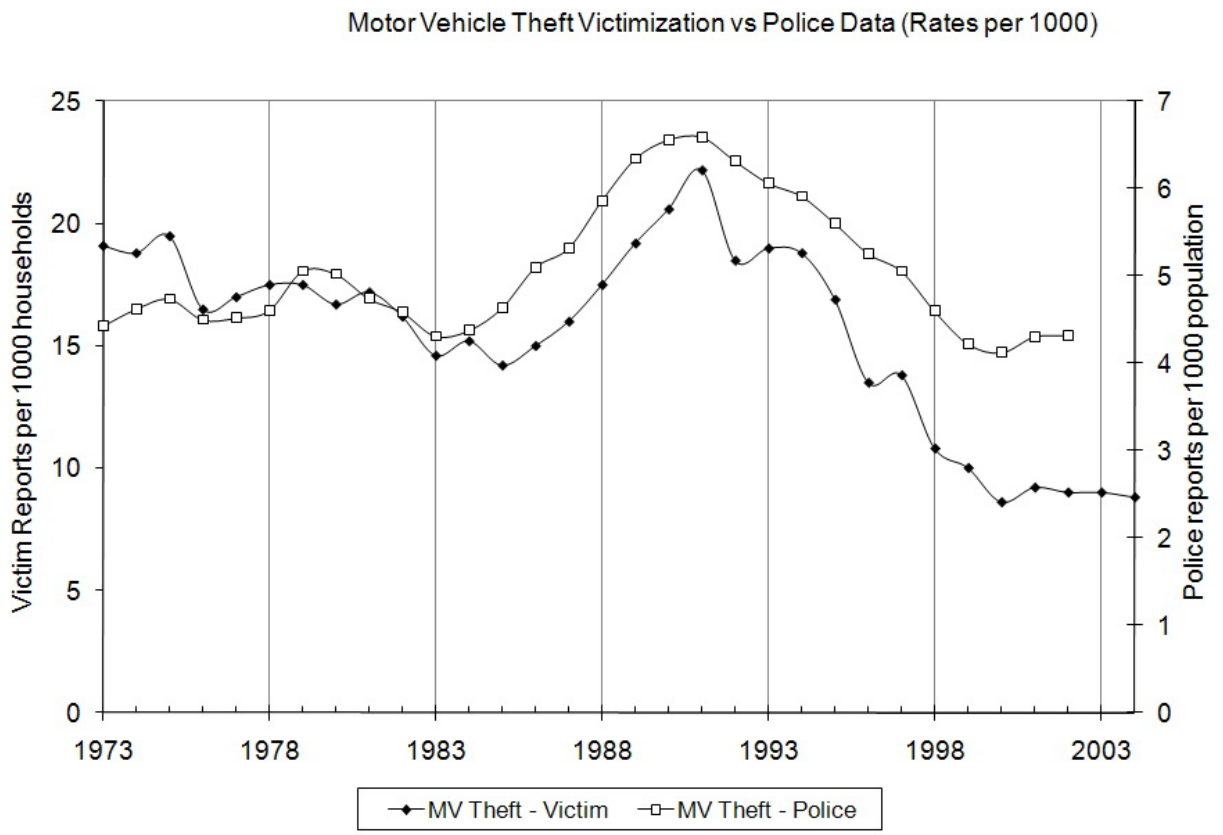


FIGURE 24. MOTOR VEHICLE THEFT VICTIMIZATION VS POLICE DATA

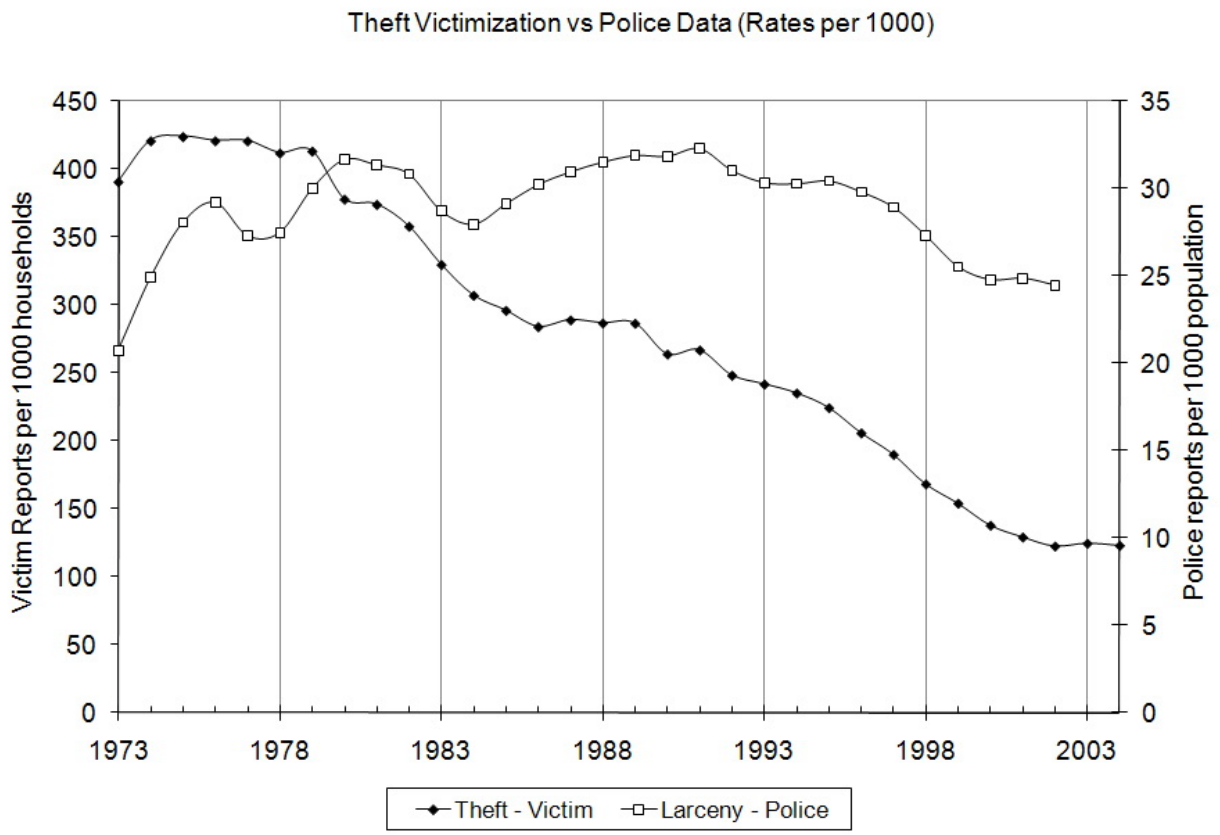


FIGURE 25. THEFT VICTIMIZATION VS POLICE DATA

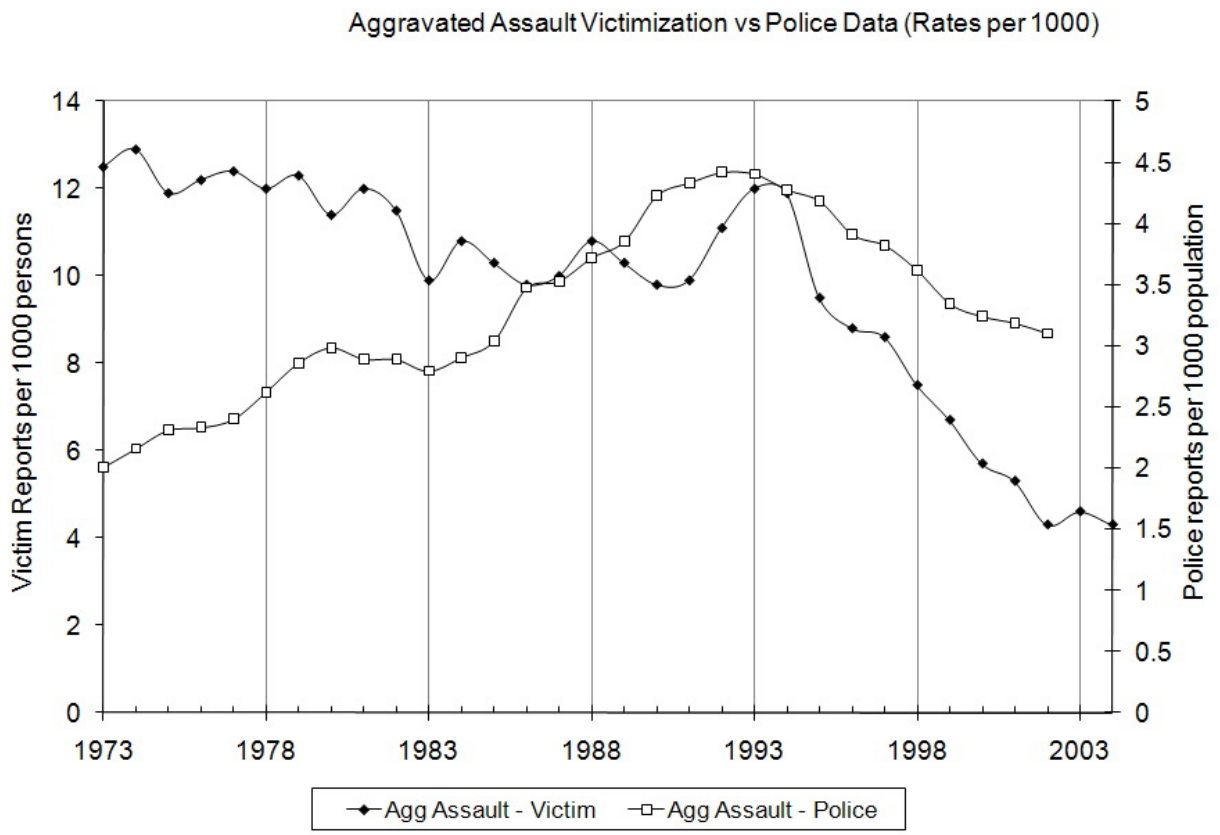


FIGURE 26. AGGRAVATED ASSAULT VICTIMIZATION VS POLICE DATA

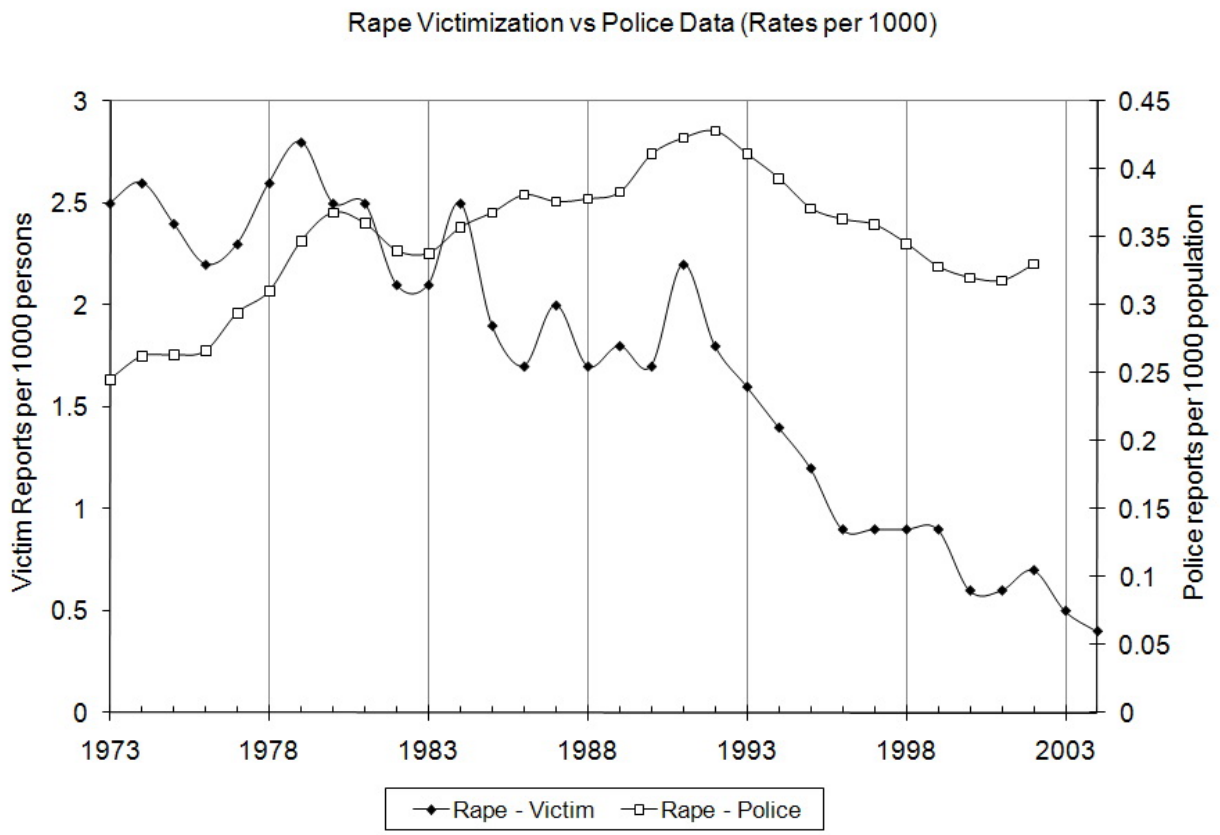


FIGURE 27. RAPE VICTIMIZATION VS POLICE DATA

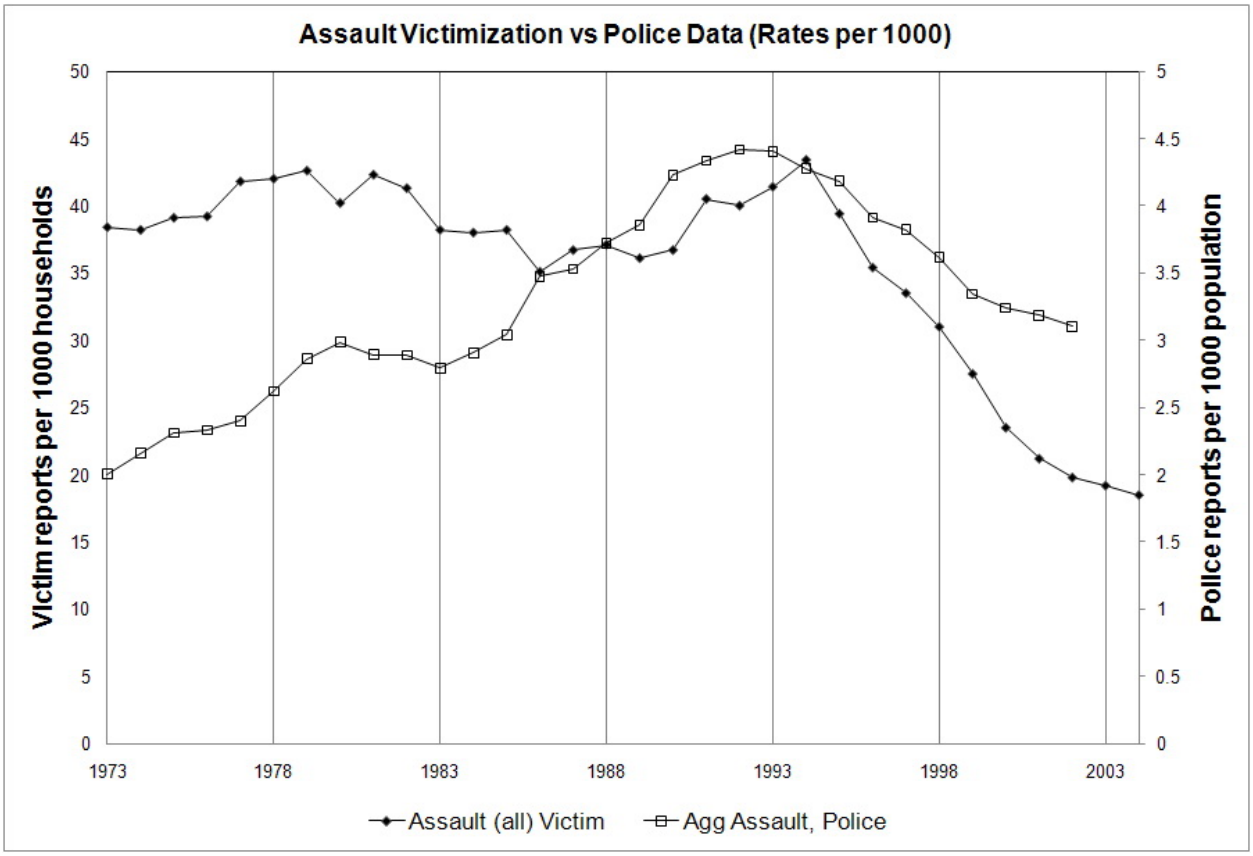


FIGURE 28. ASSAULT VICTIMIZATION VS POLICE DATA

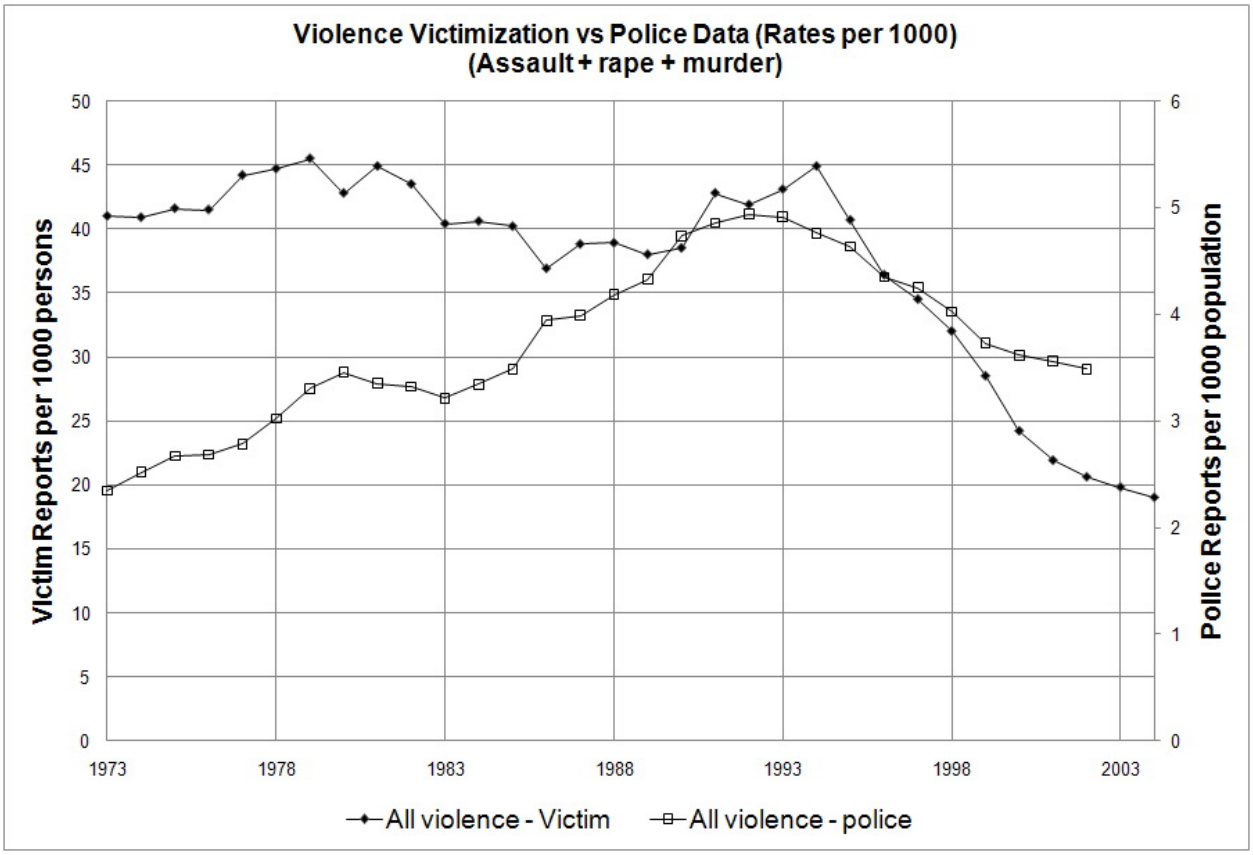


FIGURE 29. VIOLENCE VICTIMIZATION VS POLICE DATA

Notes

[1] Discussed elsewhere ??
[2] See the methodological discussion below for a consideration of crime statistics.
[3] [[ADD REF]]
[4] NOTE: NEED TO RUN THIS FOR NON-METRO TO CONFIRM THA T THE TREND IS SIMILAR FOR NONMETRO.
[5] See the methodological discussion below for further consideration of the problem of distinguishing aggravated from simple assaults.
[6] Our extract from the NCRP did not distinguish murder convictions, so we are unable to assess the extent to which murder arrests were reflected in prison sentences for murder.
[7] The offense details for drugs were too often missing or ambiguous to permit proper classification as possession versus sales offenses. Similarly there was a very high level of missing data regarding the specific drug involved in a drug conviction.
[8] [[RE-DO THIS WITH LAGS]]
[9] [[ADD IN RANGE OF THE RATIOS]]
[10] These results are not shown. Results are in fixed_r2tests_metgroup_pris_cri_arr_fixed.dta generated 7/15/2011.
[11] This line of debate also involved estimating the costs to society of these crimes and comparing those costs to the costs of incarceration to generate a cost/benefit analysis. This discussion ignores costs and benefits and just counting crimes.
[12] Emphasis in the original.
[13] Double-check Western's specific arguments.
[14] The Uniform Crime Reports includes adjustment algorithms if an agency reports for some but not all months of a year.